7. Write a paragraph of about **200** words on any *one* of the following topics : 8

 (a) Issue of Reservation

 (b) Mobile Phone–A Blessing or a Curse

 (c) Cleanliness

 (d) Female Foeticide.

GSO/D-17

ENGLISH COMPULSORY

Time : Three Hours   Maximum Marks : 80

Note : All questions are compulsory

1. Explain the following passage with reference to context : 10

 Cart after cart groans through the roads of Kanthapura, and on many a night, before the eyes are shut, the last lights we see are those of the train of carts, and the last voice we hear is that of the carriage who sings through the hollow of the night. The carts pass through the main street and through the Potter's lane and now they turn by Chennaya's pond, and up they go up the passes into the morning that will rise over the sea.

 Or

 Rama left us for Bombay the week after. But Rangamma will come out of prison soon. They say Rangamma is all for the Mahatma. We are all for the Mahatma. Punjab Rachanna's wife, Rachi and Seethamma and Timmamma are all for the Mahatma. They say they are men in Bombay and men in Punjab, and men and women in Bombay and Bengal and Punjab, who are all for the Mahatma. They

say the Mahatma will go to the Red-man's country and he will get us Swaraj. He will bring us Swaraj, the Mahatma. And we shall all be happy. And Rama will come back from exile, and Sita will be with him, for Ravana will be slain and Sita freed, and he will come back with Sita on his right in a chariot of the air, and brother Bharatha will go to meet them with the worshipped sandal of the Master on his head. And as they enter Ayodhya there will be a rain of flowers.

2. Read the passage given below and answer the questions that follow :

<div align="center">5×2=10</div>

So Moorthy goes from house to house. And from younger brother to elder brother, and from elder brother to the grandfather himself, and what do you think ? – he even goes to the Potter's quarter and the Weaver's quarter and the Sudra quarter, and I closed my ears when I heard he went to the Pariah quarter. We said to ourselves, he is one of these Gandhi—men, who say there is neither caste nor clan nor family, and yet they pray like us and they live like us. Only they say, too, one should not marry early, one should allow widows to take husbands and a Brahmin might marry a pariah and a pariah a Brahmin. Well, well, let them say it, how does it affect us ? We shall be dead before the world is polluted. We shall have closed our eyes.

Questions :

(i)   Who is Moorthy ?

(ii)   Why does he go from house to house ?

(iii) Why does he not hesitate in going to the Sudra quarter ?

(iv)   Who is the narrator of these lines ?

(v)   Who is the writer of this passage ?

<div align="center">*Or*</div>

Bade Khan was getting restless. Not only did the Patel look indifferent but he hadn't even asked Bade Khan to seat himself. So, he went up the three steps and sat by a pillar, his feet hanging down the veranda and his stick between his legs. They were silent for a moment. Then, 'He Chenna', cried Range Gowda, turning towards the inner courtyard. 'you had better go to the big field and see whether those sons of concubines are planting well. And tell Mada to hurry back before midday and fill the carts with sacks. Tomorrow is the fair.'

Questions :

(i)   Who was Bade Khan ?

(ii)   How did Patel treat Bade Khan ?

(iii) Where did Bade Khan sit ?

(iv)   What did Patel tell Chinna ?

(v)   Who is the writer of these lines ?

3. Answer any *five* of the questions given below in about 30 words each :

$5 \times 3 = 15$

(i) Comment on the opening of the novel "Kanthapura".

(ii) What kind of caste division do you find in the village Kanthapura ?

(iii) Who is Bhatta ?

(iv) How does Moorthy's mother react to the threat of Moorthy's excommunication ?

(v) Why is the month of Kartic important for the villagers in Kanthapura ?

(vi) What kind of auction is announced in the village Kanthapura ?

(vii) What vision does Moorthy have about Gandhi Ji ?

4. Answer any *one* of the following questions in about 300 words :

10

Discuss "Kanthapura" as a Gandhian novel.

Or

Write a brief character-sketch of Moorthy.

5. (a) Transcribe the following words and also marks primary stress (any *five*) :

5

(i) Conduct (as a verb)

(ii) Discount (as a noun)

(iii) Protest (as a verb)

(iv) Present (as a verb)

(v) Record (as a noun)

(vi) Object (as a noun)

(vii) Produce (as a verb)

(b) Mark intonation in any *five* of the following sentences :

5

(i) When did you arrive ?

(ii) How surprising !

(iii) When can you come ?

(iv) Best of luck.

(v) He didn't do it. Did he ?

(vi) Is father at home ?

(vii) This dress is good.

Or

Use any *ten* of the following idioms/phases into the sentences of your own :

10

(Only for Blind Candidates in lieu of Q. No. 5 (a) and (b).

To build castles in the air, To have an axe to grind, To beat about the bush, In cold blood, By leaps and bounds, A bookworm, To break in, Capital Punishment, To be Cock-sure, Crocodile tears, Ups and downs, Out of date. To break the ice. By hook or crook, In a nutshell, A hard nut to crack, To smell a rat.

6. (a) Fill in the blanks with the appropriate transitional word or phrase in any *five* of the following sentences : 5

(i) If you're hosting a dinner, try to finish some things in advance................. set the table the day before.

(For instance/In contrast/Similarly)

(ii) My grandfather teases me saying I am as tardy............a snail. (after/as/as a result)

(iii) Stay............you like. (as/as long as/long)

(iv) You can borrow the book............you keep it clean. (as long as/so long as/whether)

(v) He started............he received the news.

(so long as/as long as/as soon as)

(vi) We had............stepped out of the house when it began to rain. (scarcely/harddly)

(vii) ....had he gone out when it began to rain.

(Scarcely/Hardly)

(b) Transform any *Seven* of the following sentences as directed : 7

(i) I saw a wounded dog.

(Convert it into a complex sentence)

(ii) In the event of his being late, he will miss the train.

(Change into a compound sentence)

(iii) Tell me when the meeting is to take place.

(Convert it into a simple sentence)

(iv) He liked his former place.

(Convert it into a complex sentence)

(v) This is the place where the match will be played. (Convert it into a simple sentence)

(vi) Your father is the man to solve this problem.

(Convert it into a complex sentence)

(vii) In spite of his illness he came to work.

(Change into a compound sentence)

(viii) I was the first to reach the spot.

(Convert it into a complex sentence)

(ix) The stars come out. The sun disappears.

(Combine the pair of sentences into a complex sentence)

(x) He will come back today. It is certain.

(Combine and convert into a complex sentence)

(c) Write in about 50 words about Historical Novel. 5

Or

Write in brief about the following terms :

(i) Plot

(ii) Character

Roll No. ....

Total Pages : 04

GSQ/D-17

ENGLISH

1012

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt all questions.

1. Explain with reference to the context :

8

Verse, a breeze mid blossoms straying.
Where Hope clung feeding, like a bee-
Both were mine! Life went a—maying
With Nature, Hope and Poesy,
When I was young!

Or

I go in the rain, and, more than needs,
A rope cuts both my wrists behind;
And I think, by the feel, my forehead bleeds.
For they fling, whoever has a mind,
Stones at me for my year's misdeeds.

2. Answer any *four* questions out of the given six : **4×3**

(a) What do you know about the music of autumn ?

(b) How does the happy man control his desires ?

(c) What does the river symbolize in the poem ?

(d) What do you think is the first idea of Western intellectual tradition ?

P.T.O.

(v) The police is investigating the case.

(vi) The sister of Kiran is very good at cooking.

(vii) All our neighbours help each other.

(viii) Nobody have seen him.

(ix) The poem what he recited was fascinating.

(x) Everyone of them were poor.

(xi) Who are you speaking to ?

(xii) This is the boy that helped the poor traveller.

(xiii) He is not mad; he has little sense.

(xiv) Those who absent from the class will repent.

(xv) All which glitters is not gold.

(b) Complete any *five* of the given sentences with suitable clause : **5**

(i) He waited.................

(ii) Walk carefully..............

(iii) He cannot understand it...............

(iv) She cannot pass................

(v) He came later................

(vi) ....yet he attended the class.

(vii) .... the cooler it is.

4

10,200

(e) How was Subha associated with nature ?

(f) What happened once when train stopped at Deoli ?

3. Bring out the main theme of the poem "Gone". **10**

Or

What is the poet's complaint in "The World is too much With Us" ?

4. Why does Robert Lynd choose to focus on pockets and buttons ? How do these reflect on modern civilization ? **10**

Or

What is meant by scientific point of view ? What are its characteristics ? How do the enemies of science react to this point of view ?

5. Make a precis of the following passage and provide a suitable title : **15**

English education and English language have done immense goods to India, inspite of their glaring drawback. The notions of democracy and self-government are the born of English education. Those who fought and died for mother India's freedom were nursed in the cradle of English thought and culture. The West has made contribution to the East. The history of Europe has fired the hearts of our leaders. Our struggle for freedom has been inspired by the struggles for freedom in England, America and France. If our leaders were ignorant of

English and if they had not studied this language, how could they have been inspired by these heroic struggles for freedom in other lands ? English, therefore, did us great good in the past and if properly studied will do immense good in future.

English is spoken throughout the world. For international contact our commerce and trade, for the scientific studies, English is indispensable "English is very rich in literature," our own literature has been made richer by this foreign language. It will really be a fatal day if we altogether forget Shakespeare, Milton, Keats and Shaw.

6. Write a letter to the railway authorities requesting redirection of goods. **10**

Or

Write a letter congratulating a business associate on shifting his business premises to a better and more spacious office.

7. (a) Correct any *ten* sentences of the given fifteen sentences : **10**

(i) All my son-in-laws are very brilliant.

(ii) The committee is divided on the issue.

(iii) She gave a four annas coin to the beggar.

(iv) I found the sheeps grazing in the field.

   P.T.O.

Roll No. ....

GSQ/D-17

1015

Total Pages : 04

HINDI

(Comp.)

Time : Three Hours]					[Maximum Marks : 80

नोट : सभी प्रश्नों के उत्तर. दीजिए ।

1. निम्नलिखित में से किन्हीं दो की सप्रसंग व्याख्या कीजिए : 7×2=14

(क) उज्ज्वल, हारिल, लिए हाथ में वही अकेला, ओझा तिनका ।
उषा जाग उठी प्राची में-किसी बाद, भरोसा किनका ।
शक्ति लिए हाथों में-छूट न जाये यह चाह सृजन की ।
शक्ति रहे ले हाथों में-रुक न जाये यह गति जीवन की ।

(ख) धरती को कहीं से छुओ
एक सूचना को प्रतीति होती है,
देवदारुओं को देहयष्टि
क्या उपनिषदीय नहीं लगती ?
तुम्हें नहीं लगता कि
इन बीज पत्रों में
एक बीजकता है
जिसका साक्षात् नहीं किया गया है ।

(ग) ठने आए घर के अन्दर कई दिनों के बाद
धुआँ उठा आँगन से ऊपर कई दिनों के बाद
चमक उठी घर की आँखें कई दिनों के बाद
कौए ने खुजलाई पाँखें कई दिनों के बाद

(iii) रामदास को क्या बता दिया गया था ?

(iv) 'भाषा का युद्ध' कविता में कवि ने किस समस्या को उठाया है ?

(v) ठोकर कौन खाते हैं ?

(vi) द्विवेदी युग कब से कब तक रहा ?

(vii) संक्षेपण का अर्थ बताइए ।

(viii) समकालीन कविता की प्रमुख विशेषता क्या है ?

(ix) सरकारी पत्र किसे कहते हैं ?

(x) 'सोच' कविता में किसका वर्णन किया गया है ?

(घ) युद्ध की प्रतिध्वनियाँ जगाकर रक्त की हजारों बार दुहराई गयी लोरियों के संग जो गायी गयी

उसी संसार की स्मृति, उसी इतिहास की मूर्ति, जो जाड़ा, गुम हो ।

2. श्री नरेश मेहता अथवा राहुल सांकृत्यायन का साहित्यिक परिचय दीजिए ।

3. निम्नलिखित प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर प्रत्येक लगभग 150 शब्दों में दीजिए : 4×4=16

(क) हमारा देश कविता का प्रतिपाद्य लिखिए ।

(ख) 'भाषा का युद्ध' शीर्षक कविता का मूल भाव क्या है ?

(ग) लोकतंत्र व्यवस्था में किन और किस संकट उत्पन्न हो सकता है ? पठित कविता के आधार पर उत्तर दीजिए ।

(घ) 'स्वतंत्र जुबान' शीर्षक कविता का सार अपने शब्दों में लिखिए ।

(ङ) 'सिन्दूर तिलकित भाल' शीर्षक कविता में अभिव्यक्त कवि की विरह वंदना पर प्रकाश डालिए ।

(च) 'रामदास' कविता में रामदास व्यक्ति विशेष न होकर हमारे समाज के आज के वातावरण में विद्यमान सामान्य व्यक्ति है जो नितांत असुरक्षित है । उसे आए दिन किसी-किसी आतंकमयी यातनाओं से गुजरना पड़ता है, उदाहरण सहित बताइए ।

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4. द्विवेदी युग की काव्यगत प्रवृत्तियों का उल्लेख कीजिए । 10

अथवा

नई कविता की प्रवृत्तियों का उल्लेख कीजिए ।

5. निम्नलिखित में से किन्हीं दो के उत्तर दीजिए : 5+5=10

(क) भारतेन्दु युग की काव्यगत विशेषताओं का परिचय दीजिए ।

(ख) छायावादी कविता की किन्हीं तीन प्रवृत्तियों का उल्लेख कीजिए ।

(ग) प्रयोगवादी कविता का अर्थ बताते हुए समकालीन कविता की किन्हीं दो विशेषताओं का परिचय दीजिए ।

(घ) 'समकालीन' का अर्थ बताते हुए समकालीन कविता की किन्हीं दो विशेषताओं का परिचय दीजिए ।

6. निम्नलिखित में से किन्हीं दो प्रश्नों के उत्तर दीजिए : 5+5=10

(क) संक्षेपण की परिभाषा बताते हुए उसके नियमों का उल्लेख कीजिए ।

(ख) पल्लवन शब्द का अर्थ बताते हुए नियमों का उल्लेख कीजिए ।

(ग) कुसंगति की बुराइयों का उल्लेख करते हुए अपने छोटे भाई को एक पत्र लिखिए ।

(घ) अपने पिताजी को एक पत्र लिखिए जिसमें प्रातः काल की सैर का महत्त्व बताया गया हो ।

7. सभी प्रश्न अनिवार्य हैं : 1×10=10

(i) 'नाच' कविता के रचयिता का नाम बताइए ।

(ii) 'अकाल और उसके बाद' कविता में कवि ने चूल्हा न जलने व चक्की न चलने का क्या कारण बताया है ?

Roll No. ....

GSQ/D-17

Total Pages : ...

HINDI

(Elective)

L-1017

Time : Three Hours] [Maximum Marks : 80

नोट : सभी प्रश्नों को हल कीजिए।

1. निम्नलिखित में से किन्हीं दो काव्यांशों की सप्रसंग व्याख्या कीजिए : 6+6=12

(क) तुम, जो मुझसे में मेरे दे सकते हो आदेश,
'भरने दो बच्चों, तो आओ, बीच पकड़कर कोर'
नहीं देख सकते निर्मम हे तुम दो मूठी
धूली, मुझे ललकार सहा हूँ सुने धूप का घूप का नाम ...

(ख) में रख का टूटा हुआ पहिया हूँ
लेकिन मुझे फेंको मत
इतिहासों की सामग्री नहीं
सड़सठ पड़ने जाने पर, क्या जाने
सहसा टूटे हुए पहिये का आश्रय ले
...

(ग) मुझे एक तलवार बना दे
हवा की जो लहरों पर दौड़े
इतनी हलकी धार बना दे।
लम्बाई इसकी कितनी हो ?
पूरी बढ़ती फसल गेहूँ की
लहरें-बहते तक जितनी हो;

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8. निम्नलिखित में से किन्हीं दो पर टिप्पणी कीजिए : 5+5=10

(क) भारतेन्दु कालीन नाटक
(ख) प्रेमचन्द : उपन्यासकार
(ग) हिन्दी साहित्य के आधुनिक काल की राजनीतिक परिस्थितियाँ
(घ) दामा वृत्तान्त।

9. निम्नलिखित सभी प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 1 अंक का है : 10

(क) अज्ञेय किस काव्य-धारा के कवि हैं ?
(ख) 'सांचे में ढल' किसकी रचना है ?
(ग) रघुवीर सहाय के किसी एक काव्य-संग्रह का नाम।
(घ) 'पिता' कहानी के लेखक का नाम।
(ङ) 'पीली छतरी वाली लड़की' के कहानीकार का नाम।
(च) 'नए गवाह नहीं हो सकते' के कहानीकार का नाम।
(छ) 'उपन्यास सम्राट' किसे कहा जाता है ?
(ज) भारतेन्दु हरिश्चन्द्र के नाटक का नाम बताइए।
(झ) 'आरोहण' कहानी के लेखक का नाम।
(ञ) प्रेमचन्द के बाद के दो प्रमुख उपन्यासकारों के नाम।

(घ) तोड़ो तोड़ो तोड़ो
ये कसर बंजर तोड़ो
ये चटटानें पथरीली तोड़ो
...
हम देखें क्यों चलते इस अपने मन की खोज को
नहीं तोड़ पाते ?

2. निम्नलिखित में से किसी एक का आलोचनात्मक उत्तर
दीजिए :

(क) भवानीप्रसाद मिश्र की संवेदना ।

(ख) अज्ञेय की काव्यानुभूति ।

3. निम्नलिखित में से किन्हीं दो के उत्तर 200-200 शब्दों में
दीजिए :
3+3=6

...

4. निम्नलिखित में से किन्हीं दो प्रश्नों की सप्रसंग व्याख्या
कीजिए :
6+6=12

(क) धीरे-धीरे सबके लिए चुनिन्दा जुदाई नहीं, लेकिन खुद
उसमें नहीं या कम-से-कम शामिल लोग । पहले लोग उनकी
काफी विरोधी किया करते थे, अब जब लोग हार गए हैं । जानने
लगे हैं कि पिता के आगे किसी की चलेगी नहीं ।

(ख) 'मानस नगर' में वे जो बंगला बनवाणे, उसमें चारदीवारी
के चारों कोनों पर अशोक के पेड़ होंगे, सामने खूबसूरत-सा
लान होगा और 'आर्शिड-कुंज' नाम मुश्किल और मुख्य
होगा कि कमिश्नर साहब सर्किट हाउस में ठहरने के बजाय
वहीं रूकना पसंद करें ।

(ग) कई बार कोयल पेड़ काटकर जड़ छोड़ जाने पर ।
तब कभी-कभी बहुत कभी, उनमें ये कोयला पत्ती-रहित फूट
पड़ती हैं । जड़ से उखाड़ता भी ....
यह कि जैसे ही वह आदमी को काटता है, वैसे ही वह पूरा
वहीं से भागकर जाग लगाने करता है और पहला
में लोड जाता है ।

5. निम्नलिखित में से किसी एक का आलोचनात्मक उत्तर दीजिए :
(क) 'पिता' कहानी का प्रतिपाद्य ।

(ख) 'चट्टानें' कहानी का सारांश ।

6. निम्नलिखित में से किन्हीं दो पर टिप्पणी लिखिए :
3+3=6

(क) 'अपना रास्ता लो बाबा' कहानी में स्त्री ।

(ख) 'ट्रक्शिमेंट राही का पेंडू' कहानी के पात्र ।

(ग) 'तिरिछ' कहानी का कथा-शिल्प ।

7. हिन्दी कहानी के उद्भव व विकास पर प्रकाश डालिए ।   10
अथवा
हिन्दी नाटक के उद्भव व विकास पर प्रकाश डालिए ।

GSQ/D-17

1020

PANJABI (ELECTIVE)

First Paper

Time : Three Hours]   [Maximum Marks : 80

1. ਕਿਸੇ ਦੋ ਕਾਵਿ-ਟੋਟਿਆਂ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ :-

(ੳ) ਪ੍ਰਭਾਤ ਧਮਕਾ ਦੀਆ ਦਿਉਸਤਾਹੁ ਭਲਾਰਿਆ ॥
ਆਖੈ ਦੋਮ ਨ ਦੇਹੀ ਕਰਤਾ ਸਮੁ ਬਧਿ ਮਰਾਰ.ਬਰਾਰਿਰਾ ॥
ਏਤੀ ਮਾਰ ਪਈ ਕਰਲਾਣੇ ਤੈ ਕੀ ਦਰਦੁ ਨ ਆਇਆ ॥੧॥
ਕਰਤਾ ਤੂੰ ਸਭਨਾ ਕਾ ਸੋਈ ॥

(ਅ) ਪਵਣੁ ਗੁਰੂ ਪਾਣੀ ਪਿਤਾ ਮਾਤਾ ਧਰਤਿ ਮਹਤੁ ॥
ਦਿਵਸੁ ਰਾਤਿ ਦੁਇ ਦਾਈ ਦਾਇਆ ਖੇਲੈ ਸਗਲ ਜਗਤੁ ॥ ਚੰਗਿਆਈਆ
ਬੁਰਿਆਈਆ ਵਾਚੈ ਧਰਮੁ ਹਦੂਰਿ ॥
ਕਰਮੀ ਆਪੋ ਆਪਣੀ ਕੇ ਨੇੜੈ ਕੇ ਦੂਰਿ ॥

(ੲ) ਫਰੀਦਾ ਖਾਕੁ ਨ ਨਿੰਦੀਐ ਖਾਕੂ ਜੇਡੁ ਨ ਕੋਇ ॥
ਜੀਵਦਿਆ ਪੈਰਾ ਤਲੈ ਮੁਇਆਂ ਉਪਰਿ ਹੋਇ ॥

(ਸ) ਕੁਦਾ ਰਾਜ ਬਹਲੀਐ ਜਿਤ ਬੈਠਾ ਬਾਬੇ ॥
ਸ'ਪੈ ਦੂਧ ਪਿਆਲੀਐ ਵਿਚ ਸਖ ਬੀ ਸ'ਟੈ ॥
ਪ'ਥਰ ਪਾਣੀ ਰ'ਖੀਐ ਮਨ ਰਲ ਨ ਬਾਟੈ ॥
ਚੌਆ ਚੰਦਨ ਪਰਵਰੀ ਹਰ ਮਣੀ ਪਰ'ਟੈ ॥

(x) ਹੇਠ ਲਿਖਿਆਂ ਪਿਆਰਾ ਕਿਸ ਦਾ ਨਿਬੰਧ ਹੈ ?

(a) ਗੁਰਬਖਸ਼ ਸਿੰਘ ਜੀ

(b) ਪ੍ਰਿੰ: ਤੇਜਾ ਸਿੰਘ ਜੀ

(c) ਪ੍ਰ: ਪੂਰਨ ਸਿੰਘ ਜੀ

(d) ਸਰਦਾ ਰਾਮ ਫਲੌਰੀ

II. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਦੇ ਸੰਖੇਪ ਅਤੇ ਸਾਰਥਕ ਰੂਪ ਬਾਰੇ ਚਰਚਾ
ਕਰੋ :-

(a) ਸਾਹਿਤ ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਸਹਾਇਕ

(b) ਭਾਈ ਗੁਰਦਾਸ ਜੀ

(c) ਬਾਬਾ ਫ਼ਰੀਦ ਜੀ

III. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਵਲਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਦੇ ਸੰਖੇਪ ਤੇ ਰਚਨਾ ਉੱਪਰ ਇੱਕ
ਨੋਟ ਲਿਖੋ :-

(a) ਸ਼ਰਧਾ ਰਾਮ ਫਿੱਲੌਰੀ

(b) ਪ੍ਰੋ: ਪੂਰਨ ਸਿੰਘ ਜੀ

(c) ਪ੍ਰੋ: ਸਾਹਿਬ ਸਿੰਘ ਜੀ

IV. 'ਪੰਜਾਬੀ ਧਾਰ-ਬੀੜ' ਜਾਂ 'ਵਾਰਨ ਦਾ ਪ੍ਰਭਾਵ' ਨਿਬੰਧ ਦਾ ਸਾਹਿਤਕ ਮੁਲਾਂਕਣ
ਕਰੋ।

V. ਹੇਠ ਲਿਖੇ ਕਾਵਿ ਰੂਪਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਦੇ ਜੀ ਪਰਿਭਾਸ਼ਾ ਨੂੰ ਉਦਾਹਰਣਾਂ ਦੇ ਦੇ ਸਪੱਸ਼ਟ
ਕਰੋ :-

(ੳ) ਕਿੱਸਾ

(ਅ) ਗ਼ਜ਼ਲ

(ੲ) ਵਾਰੂੰ-ਸਾਰ

(ਸ) ਘੋੜੀਆ

(ਹ) ਲਾਵ

VI. ਹੇਠ ਲਿਖੇ ਹਿੰਦੀ ਸ਼ਬਦਾਂ ਦੇ ਸ਼ਬਦਾਂ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਅਨੁਵਾਦ ਕਰੋ :-

(a) ਨੀਰ

(b) ਸ਼ਵੇਤ

(c) ਪਤ੍ਰ

(d) ਸਾਮਾਨ੍ਯ

(e) ਉੱਮੀਦ

(f) ਮਾਤ੍ਭਾਸ਼ਾ

(g) ਦਸਤਾਵੇਜ

(h) ਕਠਿਨ

(i) ਸਮਸ੍ਯਾ

(j) ਕਕ੍ਸ਼ਾ 1

VII. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਂ ਦੇ ਵਿਪਰੀਤ ਅਰਥ ਲਿਖੋ :-

(ੳ) ਪ੍ਰਸਿੱਧ

(ਅ) ਉੱਚਾ

(ੲ) ਅੰਗ

(ਸ) ਪਿਆਰ

(ਹ) ਗੁਪ੍ਤ

(ਕ) ਅਮੀਰ

(ਖ) ਮਿਠਾ

(ਗ) ਹਿਸਾਬ

(ਘ) ਦੁਸ਼ਮਨ

VIII. ਦਿੱਤੇ ਗਏ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਵਿੱਚ ਦੇ ਲਿਖੋ :-

(i) ਗੁਰਮੁਖਿ-ਬਾਣੀ ਦੇ ਸੰਬੰਧੀ ਦੇ ਕਿਹੜੇ ਬੰਦ ਦਾ ?

(a) ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ ਸਹਾਇਕ

(b) ਬਾਬਾ ਨਾਮ ਫ਼ਰੀਦ ਜੀ

(c) ਸਾਹਿਤ ਸ੍ਰੀ ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਸਹਾਇਕ

(d) ਸਾਹਿਤ ਸ੍ਰੀ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਸਹਾਇਕ

(ii) ਸਾਹਿਬ ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਪ੍ਰਕਾਸ਼ (ਜਨਮ) ਕਿੱਥੇ ਹੋਇਆ ?

 (a) ਤਲਵੰਡੀ ਸਾਬੋ ਵਿੱਚ

 (b) ਤਲਵੰਡੀ ਮਾਲਾ ਵਿੱਚ

 (c) ਤਲਵੰਡੀ ਰਾਇ ਭੋਏ ਦੀ

 (d) ਤਲਵੰਡੀ ਹਰਣ ਵਿੱਚ

(iii) 'ਨਾਨਕ ਦੇਵ' ਜੀ ਦੇ ਵੱਡੇ ਸਪੁੱਤਰ ਦਾ ਕੀ ਨਾਂ ਸੀ ?

 (a) ਸਾਹਿਬ ਸ੍ਰੀ ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ ਮਹਾਰਾਜ

 (b) ਸਾਹਿਬ ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਮਹਾਰਾਜ

 (c) ਬਾਬਾ ਲਹਿਣਾ ਜੀ

 (d) ਸਾਹਿਬ ਸ੍ਰੀ ਗੁਰੂ ਅਮਰਦਾਸ ਜੀ ਮਹਾਰਾਜ

(iv) ਸ੍ਰੀ ਦਰਬਾਰ ਜੀ ਦੇ ਵਿਚਲੇ ਸੰਪੂਰਨ ਸਾਹਿਬ ਸ੍ਰੀ ਗੁਰੂ ਗ੍ਰੰਥ ਸਾਹਿਬ ਜੀ ਮਹਾਰਾਜ ਵਿੱਚ ਕੁੱਲ ?

 (a) 112

 (b) 116

 (c) 118

 (d) 115

(v) ਪੰਜਾਬੀ ਵਿੱਚ ਵਾਹਿ-ਗੁਰੂ ਦਾ ਨਾਂ ਕੀ ਬੋਲੇ ਹੈ ?

 (a) ਦਮੋਦਰ

 (b) ਲਾਹਿਮ ਸ਼ਾਹ

 (c) ਹਾਸਮ ਸ਼ਾਹ

 (d) ਵਾਰਤਕਾਰ

(vi) ਸ਼ਰਧਾ ਰਾਮ ਫਿੱਲੌਰੀ ਦਾ ਜਨਮ ਕਦੋਂ ਹੋਇਆ ?

 (a) 1807 ਈ:

 (b) 1808 ਈ:

 (c) 1809 ਈ:

 (d) 1810 ਈ:

(vii) ਪ੍ਰਿੰ: ਪੂਰਨ ਸਿੰਘ ਜੀ ਨੇ ਉਚੇਰੀ ਸਿੱਖਿਆ ਕਿੱਥੇ ਪ੍ਰਾਪਤ ਕੀਤੀ ?

 (a) ਕੋਹਾਟ ਤੋਂ

 (b) ਲੰਦਨ ਤੋਂ

 (c) ਅਮਰੀਕਾ ਤੋਂ

 (d) ਟੋਕੀਓ (ਜਾਪਾਨ) ਤੋਂ

(viii) 'ਭੈਣਾਂ' ਨਿਬੰਧ ਦਾ ਲੇਖਕ ਕੌਣ ਹੈ ?

 (a) ਲਾਲ ਸਿੰਘ ਕਮਲਾ ਅਕਾਲੀ

 (b) ਪ੍ਰਿੰ: ਪੂਰਨ ਸਿੰਘ ਜੀ

 (c) ਪ੍ਰਿੰ: ਤੇਜਾ ਸਿੰਘ ਜੀ

 (d) ਸ਼ਰਧਾ ਰਾਮ ਫਿੱਲੌਰੀ

(ix) ਪ੍ਰਿੰ: ਤੇਜਾ ਸਿੰਘ ਜੀ ਨੇ ਕਿਹੜੀ ਸ਼੍ਰੇਣੀ ਵਿੱਚ ਬੀ.ਏ. ਪਾਸ ਕੀਤੀ ?

 (a) ਛੂਕ ਸ਼੍ਰੇਣੀ ਵਿੱਚ

 (b) ਸਮਮਾਨਤੀ ਸ਼੍ਰੇਣੀ ਵਿੱਚ

 (c) ਅਵਲ਼ੀ ਸ਼੍ਰੇਣੀ ਵਿੱਚ

 (d) ਗ਼ੈਰਹਾਜ਼ਰਾ ਸਪਾਰਕ ਸ਼੍ਰੇਣੀ ਵਿੱਚ

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SANSKRIT (Compulsory)

Time : Three Hours]   [Maximum Marks : 80

नोट : सभी प्रश्न कीजिए ।

1. निम्नलिखित प्रश्नों के उत्तर दीजिए : 16

   (क) शालमुख पतन किनका होता है ?

   (ख) किसकी औषधि शाला में नहीं है ?

   (ग) गुरुगुल्छ की दो स्थिति कौनसी हैं ?

   (घ) सब गुण किसका आश्रम लेते हैं ?

   (ङ) रामायण में कितने काण्ड हैं ?

   (च) रघुवंश में कितने सर्ग हैं ?

   (छ) नम: के योग में विभक्ति होती है ?

   (ज) करण कारक किसे कहते हैं ?

2. (क) निम्नलिखित में से किन्हीं दो श्लोकों का सरलार्थ लिखिए : 10

   (अ) अन्न: सुखमाप्य: सुखतरमाप्यते विशेषज्ञ: ।

      ज्ञानलवदुर्विदग्धं ब्रह्माऽपि च तं नरं न रञ्जयति ॥

   (ब) जयन्ति ते सुकृतिनो रससिद्धा: कवीश्वरा: ।

      नास्ति येषां यश: काये जरामरणजं भयम् ॥

   (स) साहित्य सङ्गीतकलाविहीन:

       साक्षात्पशु: पुच्छविषाणहीन: ।

       तृणं न खादन्नपि जीवमान:

       तद्भागधेयं परमं पशूनाम् ॥

(ख) निम्नलिखित में से किसी एक सूक्ति की व्याख्या कीजिए : **6**

विशेष्यं सौम्यमण्डलानाम् ।

अथवा

विद्याविहीन: पशु: ।

3.

(क) निम्नलिखित में से किन्हीं दो का सप्रसंग अर्थं लिखिए : **10**

(अ) सिंह: शिशुरपि निपतति मदमलिनकपोलभित्तिषु गजेषु ।
प्रकृतिरियं सत्त्वतां न खलु वयस्तेजसां हेतु: ॥

(ब) लाङ्गूलचालनमधश्चरणावपातं
भूमौ निपत्य वदनोदरदर्शनं च ।
श्वा पिण्डदस्य कुरुते गजपुङ्गवस्तु
धीरं विलोकयति चाटुशतैश्च भुङ्क्ते ॥

(स) आला: कीर्तिं पालनं ब्राह्मणानां
दानं भोगो मित्रसंरक्षणञ्च ।
येषामेते षड्गुणा न प्रवृत्ता:
कोऽर्थस्तेषां पार्थिवोपाश्रयेण ॥

(ख) निम्नलिखित में से किसी एक सूक्ति की व्याख्या कीजिए : **6**

नि:सीमान्तश्चविभूतय: ।

अथवा

वाराङ्गना नृत्योकिरनोकला ।

4. निम्नलिखित में से किन्हीं दो पर टिप्पणियाँ लिखिए : **16**

भद्रभूति, हितोपदेश, समावण, अपरबोध ।

5.

(क) अधिकरणकारक अथवा कर्मकारक का विवेचन कीजिए । **8**

(ख) निम्नलिखित में से किन्हीं चार का शुद्ध कीजिए : **8**

(i) तस्मै पुस्तकं रुचिति ।

(ii) देवदत्तं स्वस्ति ।

(iii) मातरं स्मराति ।

(iv) लक्ष्मीं सेविता ।

(v) गवा दोग्धि पय: ।

(vi) मोक्षमिच्छा अस्ति ।

(vii) पितुणां स्वधा ।

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1024

SANSRKIT (Elective)

Time : Three Hours] [Maximum Marks : 80]

नोट : सभी प्रश्नों के उत्तर दीजिए ।

1. निम्नलिखित सभी प्रश्नों के लघु उत्तर दीजिए : 8×2=16

(क) राजा दुष्यन्त शिकार से विमुख क्यों हो गया है ?

(ख) शकुन्तला को दुर्वासा ऋषि ने शाप क्यों दिया ?

(ग) 'कुमारसम्भवम्' का क्या अर्थ है ? इसमें कितने सर्ग हैं ?

(घ) कालिदास की रचनाओं का कालानुसार विभाजन कीजिए ।

(ङ) सामवेद का क्या अर्थ है ? इसमें कितने मंत्र हैं ?

(च) 'उपनिषद्' का अर्थ बताते हुए इनकी संख्या बताइए ।

(छ) रिक्त स्थानों की पूर्ति कीजिए :

अहम् .... गच्छामि । (ग्राम:/ग्रामं)

.... नम: । (देवाय/देवं)

(ज) अतिशयोक्ति अलंकार कहाँ पर होता है ?

2. (क) किन्हीं दो श्लोकों की सप्रसंग व्याख्या कीजिए : 2×5=10

(i) शान्तमिदमाश्रमपदं स्फुरति च बाहु: कुत: फलमिहास्य ।
अथवा भवितव्यानां द्वाराणि भवन्ति सर्वत्र ॥

(ii) अनवरतधृन्वास्पालनक्रिया
रविकिरणसहिष्णु स्वेदलेशैरभिन्नम् ।
अगणितमणि मात्र व्यायतत्वादलक्ष्यं
निगिरन्न इव तया नम: प्रासादं विभाति ॥

(iii) तपसि तनुमतीषु मदनलवानिशां मां पुनर्देहि इव ।

(iv) शुश्रूष्व गुरून् प्रियसखीवृत्ति सपत्नीजने,
भर्तुर्विप्रकृतापि रोषणतया मा स्म प्रतीप गमः ।
भूयिष्ठं भव दक्षिणा परिजने भाग्येष्वनुत्सेकिनी,
यान्त्येवं गृहिणीपदं युवतयो वामाः कुलस्याधुरः ॥

(ख) निम्नलिखित सूक्तियों में से किसी **एक** की व्याख्या कीजिए : 6

अथवा

किमेव चित्रं यदि विशाखे राशाङ्क-लेखामुवहति ।

3. (क) कालिदास की काव्य-शैली का विवेचन कीजिए । 1×10

अथवा

कालिदास का जीवन-परिचय व रचनाओं का विवेचन कीजिए ।

(ख) निम्नलिखित में से किन्हीं **दो** पर टिप्पणियाँ लिखिए : 2×3=6

रघुवंशम्, कुमारसम्भवम्, अभिज्ञानशाकुन्तलम्, मेघदूतम् ।

4. (क) ऋग्वेद का वर्ण्य-विषय प्रतिपादित कीजिए । 1×10

अथवा

वेदाङ्ग का तात्पर्य प्रस्तुत करते हुए वेदाङ्गों की आवश्यकता समझाइए ।

(ख) निम्नलिखित में से किन्हीं **दो** पर टिप्पणियाँ लिखिए : 2×3

ईश उपनिषद्, आरण्यक, सामवेद, यजुर्वेद ।

5. (क) निम्नलिखित में से किन्हीं दो सूत्रों की उदाहरण सहित व्याख्या कीजिए : 2×2=4

(i) कर्तरिकृत् कर्म

(ii) स्वागत, कर्ता

(iii) चतुर्थी सम्प्रदाने

(iv) नमः-स्वस्ति-स्वाहा-स्वधा-अलं-वषट्-योगाच्च ।

(ख) निम्नलिखित में से किन्हीं **चार** का शुद्ध रूप लिखिए : 4×1=4

(i) कोलाहलमय अन्न ।

(ii) सः पादौ शुद्धा ।

(iii) विद्यालयः गच्छेः वृक्षाः सन्ति ।

(iv) भानुः मोदकं रोचते ।

(v) साहस्रः इच्छा अस्ति ।

(vi) बालाः युष्माकं विभाति ।

(ग) निम्नलिखित में से किन्हीं **दो** अलंकारों को लक्षणोदाहरण सहित स्पष्ट कीजिए : 2×4=8

यमक, उत्प्रेक्षा, विभावना, अर्थान्तरन्यास ।

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HISTORY

Opt. (ii)

Modern Europe

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. selecting at least *one* question from each Unit. Unit V is compulsory. Blind candidates may attempt any other question in lieu of the map question. If they want to attempt map question, the part relating to the explanatory note will carry full marks.

प्रत्येक इकाई में से कम से कम **एक** प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए । इकाई V अनिवार्य है । नेत्रहीन विद्यार्थी मानचित्र प्रश्न के स्थान पर कोई अन्य प्रश्न कर सकते हैं । यदि वे मानचित्र प्रश्न ही करना चाहते हैं तो उनके लिए व्याख्यात्मक टिप्पणी वाले भाग के पूरे अंक होंगे ।

Unit I

इकाई I

1. Describe the social and economic conditions of France which were responsible for the Revolution of 1789. 16

   फ्रांस की सामाजिक तथा आर्थिक अवस्थाओं का वर्णन कीजिए जिनके कारण 1789 ई. की क्रान्ति हुई ।

2. Examine the causes, events and results of the Peninsular war. What were the causes of the French failure in this war ? **16**

प्रायद्वीपीय युद्ध के कारणों, घटनाओं तथा परिणामों का विवरण दीजिए । इस युद्ध में फ्रांसीसियों की पराजय के क्या कारण थे ?

3. Critically examine the significance of the Congress of Vienna in the history of Europe. **16**

यूरोप के इतिहास में विएना कांग्रेस के महत्व का आलोचनात्मक विवेचना कीजिए ।

Unit II
इकाई II

4. Review the working of the concert of Europe ? What were the causes of its failure ? **16**

यूरोप की संयुक्त व्यवस्था के कार्यों की समीक्षा कीजिए । इसके पतन के क्या कारण थे ?

5. Give a critical evaluation of the Glorious Revolution of 1688. **16**

1688 ई. की गौरवपूर्ण क्रान्ति का आलोचनात्मक मूल्यांकन कीजिए ।

6. Explain the remark that Bismarck was an arbiter of European politics from 1841 to 1890.

इस कथन की व्याख्या कीजिए कि 1871 ई. से 1890 ई. तक बिस्मार्क ने यूरोपीय राजनीति में एक मध्यस्थ की भूमिका निभाई ।

Unit III
इकाई III

7. What were the underlying causes of the First World War ? **16**

प्रथम विश्वयुद्ध के मूल कारणों की व्याख्या कीजिए ।

8. Discuss the provisions, nature and effects of the Treaty of Versailles. **16**

वर्साय की सन्धि की धाराओं, स्वरूप तथा प्रभावों की चर्चा कीजिए ।

Unit IV
इकाई IV

9. Give an account of the Bolshevik Revolution of 1917. What were the causes of its success. **16**

1917 ई. की बोल्शेविक क्रान्ति का वर्णन कीजिए । इसकी सफलता के क्या कारण थे ?

10. On the outline map of Germany, show the various stages in the unification of Germany. Also add an explanatory note. **10,6**

जर्मनी के मानचित्र पर जर्मनी के एकीकरण के विभिन्न चरणों को दर्शाइए । एक व्याख्यात्मक टिप्पणी भी लिखिए ।

Or (अथवा)

On the outline map of Europe, show the Europe on the eve of World War-II. Also add an explanatory note. **10,6**

यूरोप के मानचित्र पर द्वितीय विश्वयुद्ध के समय यूरोप को दर्शाइए। एक टिप्पणी भी लिखिए।

Unit V
इकाई V

(Compulsory Question)
(अनिवार्य प्रश्न)

Part I
भाग I

11. Write very short answer of any *four* questions from the following. Each question carries 2 marks : **4×2=8**

निम्नलिखित में से किन्हीं **चार** प्रश्नों के अति संक्षिप्त उत्तर लिखिए। प्रत्येक प्रश्न के 2 अंक हैं :

(a) Name *three* famous kings of Burbon dynasty.

बूर्बो वंश के **तीन** प्रसिद्ध सम्राटों के नाम बताइए।

(b) Who was the Pope of Rome during the time of Napoleon.

नेपोलियन के समय में रोम का पोप कौन था ?

(c) What was the purpose of the domestic policy of Metternich ?

मेटरनिख की गृह नीति का उद्देश्य क्या था ?

(d) When and where James II died ?

जेम्स द्वितीय की मृत्यु कब और कहाँ हुई ?

(e) Which leader of Italy took part in Peace Settlement ?

शान्ति सम्मेलन में इटली का कौनसा नेता शामिल हुआ ?

(f) When was the government of Bolshevik Party established in Russia ?

रूस में बोल्शेविक दल की सरकार की स्थापना कब हुई ?

Part II
भाग II

Choose the correct answer, each question carries 1 mark : **4×1=4**

सही उत्तर का चयन कीजिए, प्रत्येक प्रश्न का 1 अंक है :

(a) Who were known as Matayor in French society ?

फ्रांसीसी समाज में मेतायर किसे कहा जाता था ?

(i) Nobles
कुलीनों को

(ii) Artisans
कारीगरों को

(iii) Peasants
किसानों को

(iv) Tenants
मुजारों को

(b) Napoleon attacked Russia in :
  (i) 1801
  (ii) 1805
  (iii) 1807
  (iv) 1812

नेपोलियन ने रूस पर आक्रमण किया :
  (i) 1801 में
  (ii) 1805 में
  (iii) 1807 में
  (iv) 1812 में

(c) Northern Germany Union was established in :
  (i) 1870
  (ii) 1867
  (iii) 1864
  (iv) 1866

उत्तरी जर्मन संघ की स्थापना कब हुई ?
  (i) 1870
  (ii) 1867
  (iii) 1864
  (iv) 1866

(d) When did Japan surrender in Second World War ?
  (i) 6th August, 1944
  (ii) 9th August, 1945
  (iii) 15th September, 1945
  (iv) 14th August, 1945

द्वितीय विश्वयुद्ध में जापान ने कब आत्म-समर्पण किया ?
  (i) 6 अगस्त, 1944 ई. को
  (ii) 9 अगस्त, 1945 ई. को
  (iii) 15 सितम्बर, 1945 ई. को
  (iv) 14 अगस्त, 1945 ई. को

Part III
भाग III

Match column 'A' to column 'B'. 1 mark for each point : 4×1=4

Column 'A'		Column 'B'
(i)	Murder of Louis XVI	(a) 1912
(ii)	Age of Conferences	(b) 1854-56
(iii)	War of Crimean	(c) 1815-25
(iv)	First Balkan War	(d) 21st January, 1793

कॉलम 'अ' को कॉलम 'ब' से उचित मिलान कीजिए । प्रत्येक का 1 अंक है :

कॉलम 'अ'		कॉलम 'ब'
(i)	लुई सोलहवें की हत्या	(a) 1912
(ii)	सम्मेलनों का युग	(b) 1854-56
(iii)	क्रीमिया का युद्ध	(c) 1815-25
(iv)	प्रथम बाल्कन युद्ध	(d) 21 जनवरी, 1793

GSQ/D-17

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HISTORY

Paper II (ii)

Modern Europe (1789-1945 A.D.)

Time : Three Hours]

[Maximum Marks : 90

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section. All questions carry equal marks. Blind candidates may attempt any other question in lieu of the map question. If they wish to attempt map question, the explanatory note will carry full marks.

प्रत्येक खण्ड में कम से कम एक प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए । सभी प्रश्नों के अंक समान हैं । नेत्रहीन दिव्यांग भावार्थ प्रश्न के स्थान पर कोई अन्य प्रश्न कर सकते हैं । यदि वे मानचित्र प्रश्न ही करना चाहते हैं तो उनके लिए व्याख्यात्मक टिप्पणी वाले भाग के पूरे अंक होंगे ।

Section I
खण्ड I

1. Describe the social and economic causes of the French Revolution of 1789.

18

1789 ई. की फ्रांसीसी क्रांति के सामाजिक व आर्थिक कारणों का वर्णन कीजिए ।

2. Discuss the early expeditions of Napoleon. **18**

   नेपोलियन के आरम्भिक अभियानों की व्याख्या कीजिए ।

3. Discuss the decisions of Vienna Congress of 1815. **18**

   1815 ई. की विएना कांग्रेस के निर्णयों की व्याख्या कीजिए ।

Section II
खण्ड II

4. Describe the causes of The Glorious Revolution of 1688. **18**

   1688 ई. की गौरवपूर्ण क्रान्ति के कारणों का वर्णन कीजिए ।

5. Describe the various stages in the unification of Italy. **18**

   इटली के एकीकरण की विभिन्न अवस्थाओं का वर्णन कीजिए ।

6. Describe the diplomatic alliances of Bismarck. **18**

   बिस्मार्क के कूटनीतिक समझौतों का वर्णन कीजिए ।

Section III
खण्ड III

7. Describe the causes of the First World War. **18**

   प्रथम विश्वयुद्ध के कारणों का वर्णन कीजिए ।

8. Describe the results of Russian Revolution of 1917. **18**

   1917 ई. की रूसी क्रान्ति के परिणामों का वर्णन कीजिए ।

9. Describe the results of Second World War. **18**

   द्वितीय विश्वयुद्ध के परिणामों का वर्णन कीजिए ।

Section IV
खण्ड IV

10. On the outline map of Europe show the political conditions of Europe on the eve of French Revolution. Also add an explanatory note. **12,6**

    यूरोप के रेखांकित मानचित्र पर फ्रांस की क्रान्ति के समय यूरोप की राजनैतिक दशा दर्शाइये । व्याख्यात्मक टिप्पणी भी लिखिए ।

Or (अथवा)

On the outline map of Europe show the Europe on the eve of World War I. Also add an explanatory note. **12,6**

यूरोप के रेखांकित मानचित्र पर प्रथम विश्वयुद्ध के समय को दर्शाइये । व्याख्यात्मक टिप्पणी भी लिखिए ।

Section V
खण्ड V

11. Short Answer Type Questions :

    लघु उत्तरीय प्रश्न :

    (a) Answer any *four* questions from the following : **4×2**

    निम्नलिखित में से किन्हीं **चार** प्रश्नों के उत्तर दीजिए :

    (i) When was the National Assembly formed ?

    राष्ट्रीय सभा की स्थापना कब हुई ?

(ii) Who was the king of France on the eve of French Revolution of 1789?

1789 ई. में फ्रांस की क्रांति के समय फ्रांस का सम्राट कौन था?

(iii) Who was the name of Napoleon's wife?

नेपोलियन की पत्नी का क्या नाम था?

(iv) Who is called the 'Sword of Italy'?

'इटली की तलवार' किसे कहा जाता है?

(v) Who was the leader of Bolshevik Party?

बोल्शेविक दल का नेता कौन था?

(vi) Who adopted the Policy of Blood and Iron?

रक्त और लोह की नीति किसने अपनाई? **5**

(b) Choose the correct answer :

सही उत्तर का चयन कीजिए :

(i) Social Contract was written by :

(1) Rousseau

(2) Voltaire

(3) Montesquieu

(4) Adam Smith

"सामाजिक समझौता" किसने लिखा ?

(1) रूसो

(2) वाल्टेयर

(3) मांटेस्क्यू

(4) एडम स्मिथ

(ii) Metternick was the Chancellor of :

(1) Germany

(2) Japan

(3) Austria

(4) England

मैटरनिख किस देश का चांसलर था ?

(1) जर्मनी

(2) जापान

(3) आस्ट्रिया

(4) इंग्लैंड

(iii) Who was called the brain behind Italy Unification ?

(1) Cavour

(2) Mazzini

(3) Garribaldi

(4) Victor Emmanuel

इटली एकीकरण के पीछे किसका मस्तिष्क कहा जाता है ?

(1) कावूर

(2) मैजिनी

(3) गैरिबाल्डी

(4) विक्टर इमेनुअल

(iv) Glorious Revolution occurred in England in :
(1) 1789 A.D.
(2) 1688 A.D.
(3) 1649 A.D.
(4) 1680 A.D.

इंग्लैण्ड में शानदार क्रांति हुई :
(1) 1789 A.D. में
(2) 1688 A.D. में
(3) 1649 A.D. में
(4) 1680 A.D. में

(v) Triple Entente was done in :
(1) 1882 A.D.
(2) 1907 A.D.
(3) 1902 A.D.
(4) 1904 A.D.

त्रिपक्षीय समझौता हुआ :
(1) 1882 A.D. में
(2) 1907 A.D. में
(3) 1902 A.D. में
(4) 1904 A.D. में

(c) Match the following :

'A'		'B'
(i) Cavour	(i)	1939 A.D.
(ii) Bismarck	(ii)	Italy
(iii) First World War	(iii)	Germany
(iv) Peace Settlement	(iv)	1870-71 A.D.
(v) Franco-Prussian War	(v)	1919 A.D.

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उचित मिलान कीजिए :

'A'		'B'
(i) कावूर	(i)	1939 A.D.
(ii) बिस्मार्क	(ii)	इटली
(iii) प्रथम विश्वयुद्ध	(iii)	जर्मनी
(iv) शान्ति समझौते	(iv)	1870-71 A.D.
(v) फ्रेंको-प्रशिया युद्ध	(v)	1919 A.D.

GSO/D-17

1035

POLITICAL SCIENCE

Opt. I

Comparative Politics

Time : Three Hours] [Maximum Marks : 80

Note : Attempt any *Five* questions. All questions carry equal marks.

किन्हीं **पाँच** प्रश्नों के उत्तर दीजिए । सभी प्रश्नों के अंक समान हैं ।

1. Discuss the meaning, nature and scope of Comparative Politics. 16

   तुलनात्मक राजनीति का अर्थ, प्रकृति और क्षेत्र का वर्णन कीजिए ।

2. Critically discuss the Behavioural Approach. 16

   व्यवहारवादी दृष्टिकोण की आलोचनात्मक व्याख्या कीजिए ।

3. Critically discuss the input-output approach given by David-Easton. 16

   डेविड ईस्टन द्वारा दिए गए आगत-निर्गत दृष्टिकोण की आलोचनात्मक व्याख्या कीजिए ।

(viii) Who wrote the book "Prince" ?

(a) Machiavelli

(b) Pareto

(c) Laski

(d) Green

"Prince" नामक पुस्तक किसने लिखी ?

(अ) मेक्यावली

(ब) पैरेटो

(स) लास्की

(द) ग्रीन

4. Discuss the various problems of Constitutionalism and point out the suggestions to solve the problems of Constitutionalism.

   संविधानवाद के मार्ग में क्या रुकावटें हैं तथा उन्हें दूर करने के लिए आप क्या सुझाव देंगे ? विवेचना कीजिए ।

5. Discuss critically the advantages and disadvantages of the Bi-cameral legsilation. 16

   द्विसदनीय विधानमण्डल के लाभ तथा हानियों की आलोचनात्मक व्याख्या कीजिए ।

6. Explain the role of opposition party in Modern Democracy System. 16

   आधुनिक प्रजातन्त्रीय प्रणाली में विरोधी दल की भूमिका का वर्णन कीजिए ।

7. What do you mean by Pressure Group ? Discuss the role of pressure groups in modern democratic countries. 16

   दबाव समूह से आप क्या समझते हैं ? आधुनिक लोकतन्त्रीय देशों में दबाव समूहों की भूमिका का वर्णन कीजिए ।

8. Describe the functions of Judiciary. 16

   न्यायपालिका के कार्यों का वर्णन कीजिए ।

9. Objective Type Questions : 2×8=16

   वस्तुनिष्ठ प्रश्न :

   (i) Who wrote the book "A System Analysis of Political Life" ?

   (a) Almond and Powell

   (b) Laski

   (c) T.H. Green

   (d) Laswell

   "A System Analysis of Political Life" पुस्तक किसने लिखी ?

   (अ) आमंड व पावेल

   (ब) लास्की

   (स) टी.एच. ग्रीन

   (द) लासवेल

   (ii) Which country is founder country of "Rule of Law" ?

   (a) India

   (b) England

   (c) U.S.A.

   (d) U.S.S.R.

   'कानून का 'शासन' की स्थापना किस देश में हुई ?

   (अ) भारत

   (ब) इंग्लैण्ड

   (स) अमेरिका

   (द) रूस

(iii) Which country adopted hereditary executive ?

  (a) England

  (b) Pakistan

  (c) India

  (d) America

किस देश में पैतृक कार्यपालिका है ?

  (अ) इंग्लैण्ड

  (ब) पाकिस्तान

  (स) भारत

  (द) अमेरिका

(iv) Permanent executive is :

  (a) Civil Services

  (b) Public

  (c) Legislature

  (d) Judiciary

स्थाई कार्यपालिका है :

  (अ) असैनिक सेवा

  (ब) जनता

  (स) विधानमण्डल

  (द) न्यायपालिका

(v) How many types of Party System are there in various countries ?

  (a) One Party

  (b) Two Party

  (c) Multy Party

  (d) All of the above

विभिन्न देशों में दलीय प्रणाली कितने प्रकार की होती हैं ?

  (अ) एकदलीय

  (ब) द्विदलीय

  (स) बहुदलीय

  (द) उपर्युक्त सभी

(vi) Which country have maximum pressure groups ?

  (a) England

  (b) India

  (c) USA

  (d) Pakistan

किस देश में सबसे अधिक दबाव समूह पाए जाते हैं ?

  (अ) इंग्लैंड

  (ब) भारत

  (स) अमेरिका

  (द) पाकिस्तान

(vii) What is name of USA Legislature ?

  (a) Parliament

  (b) Diet

  (c) Congress

  (d) Senate

अमेरिका के विधानमण्डल का क्या नाम है ?

  (अ) संसद

  (ब) डाइट

  (स) काग्रेस

  (द) सीनेट

CSQ/D-17

1037

ECONOMICS

Issues in Development and Planning with Reference to India

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory consisting of objective type eight questions of 2 marks each. *Select one* question each from any three Units and fourth question may be attempted from any Unit. All questions carry equal marks.

कुल पाँच प्रश्नों के उत्तर दीजिए। प्रश्न संख्या **1** अनिवार्य है, जिसमें आठ वस्तुनिष्ठ प्रश्न हैं। प्रत्येक प्रश्न के 2 अंक हैं। किन्हीं तीन इकाइयों में से एक-एक प्रश्न कीजिए। चौथा प्रश्न किसी भी एक इकाई से कीजिए। सभी प्रश्नों के अंक समान हैं।

1. (a) Choose the correct answer :
   सही विकल्प चुनिए :
   (i) Balanced growth means :
   (1) Balance in Agriculture Sector
   (2) Balance in Industrial Sector
   (3) Balance in Service Sector
   (4) Balance in all the Sectors

Unit IV
इकाई IV

8. Planning has partially succeeded in India. Do you agree with this statement ? Give reasons in support of your answer. 8,8

भारत में नियोजन को आंशिक सफलता प्राप्त हुई है। क्या आप इस कथन से सहमत हैं ? अपने उत्तर के संदर्भ में तर्क दीजिए।

9. Do you think the present rates of saving and capital formation are adequate in India ? How can these be improved ? 8,8

क्या आपके विचार में वर्तमान बचतों की दर तथा पूँजी निर्माण की दर पर्याप्त है ? इन्हें कैसे सुधारा जा सकता है ?

संतुलित विकास से अभिप्राय है :

(1) कृषि क्षेत्र में संतुलन

(2) उद्योग क्षेत्र में संतुलन

(3) सेवा क्षेत्र में संतुलन

(4) सभी क्षेत्रों में संतुलन

(ii) The process of adding to the stock of capital per year is called :

(1) Capital Formation

(2) Wealth Accumulation

(3) Stock of Capital

(4) None of the above

प्रति वर्ष पूँजी के स्टॉक में होने वाली वृद्धि को कहते हैं :

(1) पूँजी निर्माण

(2) धन संचय

(3) पूँजी स्टॉक

(4) उपर्युक्त में से कोई नहीं

(iii) As per Census 2011, sex ratio in India per thousand males is :

(1) 927

(2) 931

(3) 940

(4) 953

सन् 2011 की जनगणना के आँकड़ों के अनुसार भारत में प्रति हजार पुरुषों के पीछे लिंग अनुपात है :

(1) 927

(2) 931

(3) 940

(4) 953

(b) Which of the following is true or False :

(i) According to Schumpeter, innovators depend basically on savings and not so much on bank credit.

(ii) For UDCs co-ordination of different types of techniques of production may be appropriate.

निम्नलिखित में से कौन-सा कथन सत्य/असत्य है :

(i) शुम्पीटर के अनुसार एक नव प्रवर्तक पूँजी के लिए बचत पर निर्भर रहता है न कि बैंक साख पर।

(ii) अल्पविकसित अर्थव्यवस्थाओं के लिए विभिन्न प्रकार की उत्पादन तकनीक में समन्वय रखना उपयुक्त है।

(c) Fill in the blanks :

(i) ....are income depressing agents
(Shocks/Stimulates)

(ii) Employment leads to loss of output which is a..........consequence of unemployment.
(Social/Economic)

(iii) Deficit financing is now replaced with..........
(Budgetary Deficit/Fiscal Deficit)

रिक्त स्थानों की पूर्ति कीजिए :

(i) ....आय कम करने वाले तत्व हैं ।

(ii) बेरोजगारी से उत्पादन को हानि होती है । वह बेरोजगारी का..........परिणाम है ।
(घटका/उत्तेजक तत्व)

(iii) घाटे की वित्त-व्यवस्था के बदले अब प्रयोग किया जाता है..........। (वजटीय घाटा/विनीय घाटा)
(सामाजिक/आर्थिक)

Unit I
इकाई 1

2. Differentiate between the concept of 'Quality of life' and 'Standard of living'. Explain physical quality of life index in detail. **4,12**

'जीवन की गुणवत्ता' एवं 'जीवन स्तर' अवधारणाओं में अन्तर स्पष्ट कीजिए । जीवन के भौतिक गुणवत्ता सूचकांक को विस्तार से समझाइये ।

3. Critically explain Lewis model of unlimited supply of labour for developing countries. **12,4**

विकासशील देशों के संदर्भ में श्रम की असीमित पूर्ति के लुईस मॉडल की आलोचनात्मक व्याख्या कीजिए ।

Unit II
इकाई II

4. Define Liberalization. Explain the economic reforms adopted in India under liberalization. **4,12**

उदारीकरण का अर्थ स्पष्ट कीजिए । भारतीय अर्थव्यवस्था में उदारीकरण के अन्तर्गत किए गए आर्थिक सुधारों की व्याख्या कीजिए ।

5. Explain the concept of inter-generational equity in the concept of sustainable development. How can it be achieved ? **4,12**

धारणीय विकास के संदर्भ में अन्तरपीढ़ी समता की अवधारणा की व्याख्या कीजिए । इसे कैसे प्राप्त किया जा सकता है ?

Unit III
इकाई III

6. Explain the nature of occupational structure in India. What changes in it have taken place in the last two decades and what do they reflect ? **4,12**

भारत के व्यावसायिक ढांचे की प्रकृति की व्याख्या कीजिए । पिछले दो दशकों में इनमें क्या परिवर्तन हुए हैं और वे क्या दर्शाते हैं ?

7. Explain the concept of rural employment and urban employment. Explain the causes of increasing unemployment in India. **8,8**

ग्रामीण बेरोजगारी व शहरी बेरोजगारी का अर्थ स्पष्ट कीजिए । भारत में बढ़ती बेरोजगारी के कारणों की व्याख्या कीजिए ।

GSO/D-17

1042

HEALTH AND PHYSICAL EDUCATION

Time : Three Hours]   [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 9 (Unit V) is compulsory. All questions carry equal marks.

उत्तर दीजिए । प्रश्न संख्या 9 (इकाई V) अनिवार्य है । सभी प्रश्नों के अंक समान हैं ।

प्रत्येक इकाई में से एक प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के

कियोसावस्था की विशेषताओं का विस्तार से वर्णन कीजिए ।

Unit I
इकाई I

1. Explain in detail about the characteristics of Adolescence.   10

2. Explain in detail about the factors affecting Growth and Development.   10

वृद्धि और विकास को प्रभावित करने वाले कारकों का विस्तार से वर्णन कीजिए ।

(vii) What is the function of Red Blood Cells ?   2

लाल रक्त कणिकाओं का क्या कार्य है ?

(viii) What is the function of platelets (blood composition) ?   2

प्लेटलेट्स (रक्त संघटक) का क्या कार्य है ?

(ix) What do you mean by League Tournament ?   2

लीग टूर्नामेंट का अर्थ लिखिए ।

(x) What do you mean by Organisation ?   2

संगठन शब्द से क्या तात्पर्य है ?

Unit II

इकाई II

3. Prepare the fixture of 21 teams on knock out basis. **10**

नॉक आउट के आधार पर 21 टीमों का फिक्स्चर बनाइये ।

4. Write in detail about principles of sports organisation and administration. **10**

खेल संगठन एवं प्रशासन के सिद्धान्तों का विस्तार से वर्णन कीजिए ।

Unit III

इकाई III

5. What do you mean by Good Posture ? Explain in detail about the importance of Good Posture. **10**

उचित आसन का अर्थ लिखिए तथा इसके महत्त्व का विस्तार से वर्णन कीजिए ।

6. Explain in detail about causes and remedies of poor posture. **10**

विकृत आसन (आसन सम्बन्धी विकारों) के कारणों एवं उपायों का विस्तार से वर्णन कीजिए ।

Unit IV

इकाई IV

7. Explain in detail about Muscular System. **10**

मांसपेशीय संस्थान का विस्तार से वर्णन कीजिए ।

8. Explain in detail about blood composition. **10**

रक्त संरचना का विस्तार से वर्णन कीजिए ।

Unit V

इकाई V

(Compulsory)

(अनिवार्य)

9. (i) Write down definition of Development. **2**

विकास को परिभाषित कीजिए ।

(ii) Write down any *three* stages of Growth and development. **2**

वृद्धि और विकास की कोई तीन अवस्थाएँ लिखिए ।

(iii) Write down environmental factors affecting Growth and Development. **2**

वृद्धि और विकास को प्रभावित करने वाले वातावरणीय कारक लिखिए ।

(iv) What do you mean by Heredity ? **2**

वंशानुक्रम से क्या अभिप्राय है ?

(v) Write down the name of any *three* postural deformities. **2**

आसन सम्बन्धी किन्हीं तीन विकारों के नाम लिखिए ।

(vi) Write down any *three* causes of postural deformity. **2**

आसन सम्बन्धी विकारों के कोई तीन कारण लिखिए ।

Roll No. ....

GSQ/D-17   1043

HEALTH & PHYSICAL EDUCATION

Time : Three Hours]   [Maximum Marks : 50

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 9 (Unit V) is compulsory. All questions carry equal marks.

प्रत्येक इकाई से **एक** प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए । प्रश्न संख्या 9 (इकाई V) अनिवार्य है । सभी प्रश्नों के अंक समान हैं ।

Unit I
इकाई I

1. Define Growth and Development and explain stages of Growth and Development.   10

   वृद्धि एवं विकास की परिभाषा लिखिए तथा वृद्धि एवं विकास की अवस्थाओं की व्याख्या कीजिए ।

2. Explain about factors influencing growth and development.   10

   वृद्धि एवं विकास को प्रभावित करने वाले कारकों के विषय में विस्तार से लिखिए ।

(iv) What is Intramural ?   1

इन्ट्रामुरल किसे कहते हैं ?

(v) Write any *two* advantages of Extramural.   1

एक्स्ट्रामुरल के दो लाभ बताइए ।

(vi) What is Bye ?   1

बाई किसे कहते हैं ?

(vii) What is Knock Knee ?   1

घुटनों का टकराना क्या है ?

(viii) What do you mean by gross anatomy of muscles ?   1

मांसपेशियों की समग्र तथा सकल रचना क्या है ?

(ix) What is RBC and its count in per cubic m. liter ?   1

लाल रक्त कणिकाएँ क्या हैं तथा प्रति क्यूबिक मि. लीटर में इनकी संख्या कितनी होती है ?

(x) What are functions of Blood ?   1

रक्त के कार्य कौनसे हैं ?

Unit II
इकाई II

3. Discuss in detail the principles of sprots organization and administration.

   खेल संगठन एवं प्रशासन के सिद्धान्तों के विषय में विस्तृत व्याख्या कीजिए ।

4. What do you mean by Tournament ? Explain its types. 10

   टूर्नामेंट से आप क्या समझते हैं ? इसके विभिन्न प्रकारों का वर्णन कीजिए ।

Unit III
इकाई III

5. What do you mean by Posture ? Write in detail the importance of good posture ? 10

   आसन का अर्थ व अच्छे आसन का महत्त्व बताइए ।

6. Explain the symptoms and causes and remedy for postural deformities i.e. Lordosis and Kyphosis. 10

   कूबड़ पीछे को तथा कूबड़ आगे की आसन संबंधी विकृतियों के लक्षण, कारण तथा उपाय विस्तारपूर्वक लिखिए ।

Unit IV
इकाई IV

7. Explain the types of muscles in human body. 10

   मानव शरीर में पाई जाने वाली मांसपेशियों के प्रकारों का वर्णन कीजिए ।

8. What do you mean by Composition of Human Blood ? Explain its constituents. 10

   मानव रक्त संरचना से आप क्या समझते हैं ? इसके घटकों का वर्णन कीजिए ।

Unit V
इकाई V
(Compulsory)
(अनिवार्य)

9. (i) How do grands affect the growth and development ? 1

      ग्रन्थियाँ वृद्धि एवं विकास को कैसे प्रभावित करती हैं ?

   (ii) Write any *two* differences between growth and development. 1

       वृद्धि एवं विकास के बीच अन्तर बताइए ।

   (iii) Meaning of Sports Organization and Administration. 1

        खेल संगठन तथा प्रशासन का अर्थ लिखिए ।

GSQ/D-17

1045

MUSIC VOCAL

Paper I

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *five* questions in all selecting at least *one* question from each Unit. All questions carry equal marks.

नोट : प्रत्येक इकाई में से कम से कम एक प्रश्न चुनते हुए कुल पाँच प्रश्न कीजिए। सभी प्रश्नों के अंक समान हैं।

Unit I

इकाई I

1. Write notation of fast Khayal in Raga Todi with two Aalaps and two Tanas.

राग तोड़ी में दो आलाप और दो तानों सहित द्रुत ख्याल की स्वरलिपि लिखिए। 8

2. Give historical introduction of Raga Basant with its Aaroh and Avroh.

राग बसन्त का ऐतिहासिक परिचय इसके आरोह-अवरोह सहित

3. Write notation of Sthyai of Vilambit Khyal in any Raga prescribed in the syllabus with one Aalap and one Than.

8

पाठ्यक्रम में वर्णित किसी भी राग में विलम्बित ख्याल जा स्थायी का स्वरलिपि एक आलाप एवं एक तान सहित लिखिए ।

4. Write the Thah, Dugun, Tigun and Chaugun Layakaries of 'Sultal' Tal with its introduction.

8

'सूलताल' ताल की ठाह, दुगुन, तिगुन एवं चौगुन लयकारियाँ उसके परिचय सहित लिखिए ।

Unit II
इकाई II

5. Write origin and development of Notation System with its merits and demerits.

8

स्वरलिपि पद्धति के उद्गम एवं विकास का वर्णन करते हुए अवगुणों सहित लिखिए ।

6. What is the contribution of Pt. Vishnu Rao Paluskar towards Indian Music ?

8

भारतीय संगीत के प्रति पं. विष्णु राव पलुस्कर का योगदान क्या है ?

7. What is the place of music in Fine Arts ? Write in detail.

8

ललित कलाओं में संगीत का क्या स्थान है ? विस्तारपूर्वक लिखिए ।

Unit III
इकाई III

8. What do you know about different Gharanas of Indian Ragas ?

8

भारतीय रागों के राग्य विभिन्न घरानों के बारे में आप क्या जानते हैं ?

9. Write an essay on 'Teaching of Music through Gharana and Educational Institutions.

8

घराना और शिक्षण संस्थानों के माध्यम से संगीत की शिक्षा पर निबंध लिखिए ।

10. Give detailed introduction of Raga Bhimpalasi.

8

राग भीमपलासी का विस्तृत परिचय दीजिए ।

GSO/D-17

1046

MUSIC (INSTRUMENT)
Paper 1 (Theory)

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each section. All questions carry equal marks.

प्रत्येक खण्ड से कम से कम **एक** प्रश्न चुनते हुए कुल पाँच प्रश्नों के उत्तर दीजिए। सभी प्रश्नों के अंक समान हैं।

Section A
खण्ड 'अ'

1. Write the notation of 'Maseetkhani Gat' of any *one* Raga of your syllabus with its two *todas*.

अपने पाठ्यक्रम में से किसी **एक** राग के 'मसीतखानी गत' को स्वरलिपि में दो तोड़ों सहित लिखिए।

2. Write the notation of the 'Razakhani Gat' of any *one* Raga with its two *todas* : 'Todi' or 'Deepa-Dhansari'।

निम्नलिखित में से किसी **एक** राग की रजाखानी गत को स्वरलिपि में दो तोड़ों सहित लिखिए :

तोड़ी, दीपक धनाश्री ।

3. Give a detailed description of Raga 'Basant'.

राग 'बसंत' का विस्तृत वर्णन कीजिए। 8

4. Describe the Raga 'Miyan Ki Malhar' in detail.

राग 'मियाँ की मल्हार' का विस्तृत वर्णन कीजिए। 8

5. While describing the Taal 'Dhamar', also write its notation in Ekgun, Dugun, Tigun, and Chaugun Layakaris.

'धमार' ताल का व्याख्या करते हुए, इसके एक-गुण, दो-गुण, तीन-गुण एवं चौगुन लयकारियों में लिखिए। 8

6. Write about the origin and development of Notation System.

स्वरलिपि-पद्धति का उत्पत्ति और विकास के बारे में लिखिए। 8

Section B
खण्ड 'ब'

7. Defining the Orchestra, write about the origin and development of Indian Orchestra.

'वृन्दवादन' का परिभाषित करते हुए, भारतीय वृन्दवादन की उत्पत्ति एवं विकास के बारे में लिखिए। 8

8. Write about the contribution of 'Ustad Mushtaq Ali Khan' towards the development of Sitar playing.

सितार-वादन का विकास के लिए उस्ताद मुश्ताक़ अली खाँ का योगदान के बारे में लिखिए। 8

9. What do you know about the contribution of Pt. Nikhil Banerjee towards the development of Sitar playing?

सितार-वादन के विकास के लिए पं. निखिल बैनर्जी का योगदान के बारे में आप क्या जानते हैं? 8

10. Write about the role of Music in International Cultural exchange.

अन्तर्राष्ट्रीय सांस्कृतिक विनिमय में संगीत की भूमिका के बारे में लिखिए। 8

OFFICE MANAGEMENT

Financial Accounting

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt any *Five* questions. All questions carry equal marks.

किन्हीं **पाँच** प्रश्नों के उत्तर दीजिए । सभी प्रश्नों के अंक समान हैं ।

1. Define Accounting. Explain its advantages and limitations.

लेखांकन की परिभाषा दीजिए । इसके लाभों तथा सीमाओं की व्याख्या कीजिए ।

16

2. What do you mean by accounting principles ? Explain their importance in accounting.

लेखांकन सिद्धान्तों से आपका क्या अभिप्राय है ? लेखांकन में इनके महत्व की व्याख्या कीजिए ।

16

3. What is Ledger ? Illustrate the posting and balancing procedure of ledger accounts.

खाताबही क्या है ? खातों के खतौनी तथा शेष निकालने की प्रक्रिया की उदाहरण सहित व्याख्या कीजिए ।

16

9. (i) How is computer useful in accounting ?

कम्प्यूटर लेखांकन में किस तरह उपयोगी है ?

(ii) What do you mean by one sided errors and two sided errors ?

एकपक्षीय अशुद्धियों तथा द्विपक्षीय अशुद्धियों से आपका क्या अभिप्राय है ?

8+8=16

10. Write short notes on the following :

निम्नलिखित पर संक्षिप्त टिप्पणियाँ लिखिए :

4×4=16

(i) Compound Entries

मिश्रित प्रविष्टियाँ

(ii) Trade Discount and Cash Discount

व्यापारिक कटौती एवं नकद कटौती

(iii) Suspense Account

उचन्ती खाता

(iv) Deferred Revenue Expenditure.

स्थगित आगमन व्यय ।

4. Is trial balance a conclusive proof of accuracy of accounts ? Discuss the errors not disclosed by trial balance.

क्या तलपट खातों की शुद्धता का पक्का प्रमाण है ? तलपट द्वारा प्रकट न होने वाली अशुद्धियों का वर्णन कीजिए ।

16

5. Why is preparation of Bank Reconciliation Statement necessary ? Explain the main causes of difference in Cash Book Balance (bank column) and Pass Book Balance.

बैंक समाधान विवरण बनाना क्यों अनिवार्य है ? रोकड़ बही के बैंक शेष (बैंक कॉलम) व पास बुक के शेष में अंतर के मुख्य कारणों का वर्णन कीजिए ।

16

6. Give Journal Entries to rectify the following errors :

8×2=16

(i) ₹ 5,000 paid for furniture purchased has been debited to purchase account.

(ii) ₹ 8,000 paid to A for salary were debited to his personal account.

(iii) ₹ 1,000 received from X has been credited to Y's account.

(iv) No entry has been made for purchase return of ₹ 200.

(v) A return of goods worth ₹ 500 by a customer were entered in Purchase Return Book.

(vi) Goods of ₹ 500 taken by the proprietor have not been entered in the books.

(vii) The Purchase Book was undercast by ₹ 1,000.

(viii) Sales to X ₹ 5,000 were posted to Y's account.

निम्नलिखित अशुद्धियों के सुधार की जर्नल प्रविष्टियाँ कीजिए :

(i) फर्नीचर के क्रय के लिए दिए गए ₹ 5,000 क्रय खाते में डेबिट कर दिए गए ।

(ii) A को ₹ 8,000 का वेतन दिया गया, जिसे उसके व्यक्तिगत खाते में डेबिट कर दिया गया ।

(iii) ₹ 1,000 'X' से प्राप्त हुए, जो 'Y' के खाते में क्रेडिट कर दिए गए ।

(iv) ₹ 200 की क्रय वापसी की पुस्तकों में कोई प्रविष्टि नहीं की गई ।

(v) एक ग्राहक द्वारा किए गए ₹ 500 के माल वापसी को क्रय वापसी बही में लिख दिया गया ।

(vi) ₹ 500 का माल स्वामी ने व्यक्तिगत प्रयोग के लिए लिया, लेकिन पुस्तकों में कोई प्रविष्टि नहीं की गई ।

(vii) क्रय बही का जोड़ ₹ 1,000 से कम लगा दिया गया ।

(viii) 'X' को की गई ₹ 5,000 की बिक्री की खतौनी 'Y' के खाते में कर दी गई ।

7. A drew a two month bill of exchange on B for ₹ 10,000 as on 1st January, 2016. On the due date the bill was dishonoured by B. Pass journal entries in the books of both the parties in the following cases :

(i) When bill is kept by 'A' till maturity.

(ii) When it is discounted with bank at 10% per annum.

(iii) When it is endorsed to C.

(iv) When it is sent to bank for collection. **16**

1 जनवरी, 2016 को A ने B पर ₹ 10,000 का 2 महीने का एक बिल लिखा । बिल की देय तिथि पर B द्वारा बिल का अनादरण किया गया । निम्नलिखित दशाओं में दोनों पक्षों की बहियों में जर्नल प्रविष्टियाँ कीजिए :

(i) जब A देय तिथि तक बिल को अपने पास रखता है ।

(ii) जब बिल को बैंक से 10% वार्षिक दर से भुना लिया जाता है ।

(iii) जब बिल का C के पक्ष में बेचान कर दिया जाता है ।

(iv) जब बिल बैंक को संग्रह के लिए भेज दिया जाता है ।

8. From the following trial balance and adjustments of 'X', prepare Trading and Profit and Loss Account for the year ending 31st March, 2016 and the Balance Sheet as on that date :

Trial Balance

Name of Account	Dr. Balance (₹)	Cr. Balance (₹)
Capital	—	4,00,000
Drawings	25,000	—
Fixed Assets	6,00,000	—
Purchases and Sales	7,00,000	14,00,000
Return Inward	15,000	—
Return Outward	—	14,000
Carriage	28,000	—
Wages	70,000	—
Salaries	35,000	—
Insurance	3,500	—
Debtors and Creditors	2,40,000	1,00,000
Bill Receivable	9,000	—
Bills Payable	—	8,000
Printing and Stationery	2,500	—
Commission	—	500

Opening Stock ... 80,000 ... —
Cash in Hand ... 1,55,000 ... —
Bank Loan ... — ... 18,000
Interest on Bank Loan ... 2,500 ... —
Rent ... — ... 25,000

                    19,65,500   19,65,500

Adjustments :

(i) Closing Stock was ₹ 95,000.

(ii) Rent Received in advance was ₹ 1,500.

(iii) Depreciate fixed assets by 10% per annum.

(iv) Interest an bank loan was outstanding ₹ 500.

(v) Allow 10% per annum interest on capital. **16**

खाते का नाम

	Dr. Balance (₹)	Cr. Balance (₹)
पूँजी	—	4,00,000
आहरण	25,000	—
स्थाई सम्पत्तियाँ	6,00,000	—
क्रय व विक्रय	7,00,000	14,00,000
आंतरिक वापसी	15,000	—
बाहरी वापसी	14,000	—
गाड़ी-भाड़ा	28,000	—
मजदूरी	70,000	—
वेतन	35,000	—
बीमा	3,500	—
देनदार व लेनदार	2,40,000	1,00,000
प्राप्य बिल	9,000	—
देय बिल	—	8,000
छिटिंग एवं स्टेशनरी	2,500	—
कमीशन	—	500
प्रारम्भिक रहतिया	80,000	—
रोकड़ शेष	1,55,000	—
बैंक ऋण	—	18,000
बैंक ऋण पर ब्याज	2,500	—
किराया	—	25,000
	19,65,500	19,65,500

'X' के निम्नलिखित तलपट तथा समायोजनाओं से 31 मार्च, 2016 को समाप्त होने वाले वर्ष का व्यापारिक एवं लाभ-हानि खाता तथा उस तिथि को स्थिति विवरण तैयार कीजिए।

समायोजनाएँ :

(i) अन्तिम रहतिया ₹ 95,000 था।

(ii) किराए के ₹ 1,500 अग्रिम प्राप्त हुए थे।

(iii) स्थाई सम्पत्तियों पर 10% वार्षिक ह्रास लगाइए।

(iv) बैंक ऋण पर ₹ 500 का ब्याज अदत्त था।

(v) पूँजी पर 10% वार्षिक ब्याज देना है।

MATHEMATICS

BM-351

Real Analysis

Time : Three Hours] [Maximum Marks : 27

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section. Q. No. **1** is compulsory.

(Compulsory Questions)

1. (a) Give an example of two subsets A and B of reals R such that $d(A, B) = 0$ but $A \cap B = \phi$.   1½

   (b) Show that every subset of a discrete metric space is closed.   1

   (c) Examine the convergence of $\int_0^1 \dfrac{1}{x^2 \cos x} dx$.   1½

   (d) Define semi-metric space.   1½

   (e) State (only) fundamental theorem of integral calculus.   1½

Section IV

8. (a) Let (X, d_1) and (Y, d_2) be metric space and f be a function of X into Y. Then f is continuous at $a \in X$ iff for every sequence (a_n) in X converging to a, the sequence $(f(a_n))$ in Y converges $f(a)$.   2½

   (b) Prove that every contraction mapping in a metric space is continuous.   2½

9. (a) A metric space (X, d) is compact iff every collection of closed subsets of X with finite intersection propery has a non-empty intersection.   2½

   (b) A metric space (X, d) is connected iff the only non-empty subset of X which are both open and closed in X is X itself.   2½

Section I

2. (a) Let f be defined on $\left[0, \dfrac{\pi}{4}\right]$ by :

$$f(x) = \begin{cases} \cos x & if \quad x \text{ is rational} \\ \sin x & if \quad x \text{ is irrational} \end{cases}$$

Show that f is bounded but not integrable on $\left[0, \dfrac{\pi}{4}\right]$. 2½

(b) A bounded function having a finite number of points of discontinuity on $[a, b]$ is integrable on $[a, b]$. 2½

3. (a) Using definition evaluate the integral :

$$\int_a^b x^m \, dx, \quad (m \neq -1, 0 < a < b)$$ 2½

(b) Prove the inequality :

$$\frac{\sqrt{3}}{8} \leq \int_{\pi/4}^{\pi/3} \frac{\sin x}{x} dx \leq \frac{\sqrt{2}}{6}$$ 2½

Section II

4. (a) Examine the convergence of the integral :

$$\int_{-a}^{a} \frac{x}{\sqrt{a^2 - x^2}} dx$$ 2½

(b) Discuss the convergence of the Beta function. 2½

5. (a) Examine the convergence of :

$$\int_0^\infty \sin x^3 \, dx$$ 2½

(b) Evaluate :

$$\int_0^\infty \frac{\tan^{-1} ax}{x(1+x^2)} dx \text{ if } a \geq 0$$ 2½

Section III

6. (a) For $1 \leq p < \infty$, if l_p is the set of all real sequences $x = (x_n)$ with $\sum_{n=1}^\infty |x_n|^p < \infty$ and

$$d(x,y) = \left(\sum_{n=1}^\infty |x_n - y_n|^p \right)^{1/p} \quad \text{for} \quad x, \ y \ \in \ l_p$$

Show that (l_p, d) is metric space. 2½

(b) Prove that in a metric space (X, d), every open sphere is an open set. 2½

7. (a) Prove that a subset F of a metric space (X, d) is closed iff its complement is open. 2½

(b) Prove that every convergent sequence in a metric space is a Cauchy sequence. Is the converse true ? Justify your answer. 2½

GSQ/D-17

1072

MATHEMATICS

BM-352

Groups and Rings

Time : Three Hours]   [Maximum Marks : 26

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory.

(Compulsory Question)

1. (a)   Define cyclic group.   1

    (b)   Define inner automorphism with an example.   1

    (c)   Define Cayley theorem.   1

    (d)   Define Quotient Ring.   1

    (e)   Define unit ideal and zero ideal.   1

    (f)   Define Euclidean Ring.   1

Unit I

2. (a)   The order of every element of a finite group is finite and cannot exceed the order of the group. Prove it.   2½

(b) The number of generators of a finite cyclic group of order n is $\phi(n)$, where $\phi(n)$ is the Euler's function. Prove it.   2½

3. (a) If H is a subgroup of G, then G is equal to the union of all right cosets of H in G.   2½

(b) Prove that every quotient group of a cyclic group is cyclic.   2½

Unit II

4. (a) If H is a subgroup of a group G and f is an automorphism of G such that $f(\text{H}) = \{f(h) : h \in \text{H}\}$, then prove that $f(\text{H})$ is a subgroup of G.   2½

(b) If G is a finite abelian group of order n and m is a positive integer such that $(m, n) = 1$, then show that $f : \text{G} \rightarrow \text{G}$ defined by $f(x) = x^m$ is an automorphism.   2½

5. (a) Let G = $\{e, a, a^2, a^3\}$ be a cyclic group of order 4. Show that H = $\{e, a^2\}$ is a characteristics subgroup of G.   2½

(b) Decompose the permutation :

$$\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 9 & 8 & 7 & 1 & 2 & 3 & 4 & 6 & 5 \end{pmatrix}$$

into product of transpositions.   2½

Unit III

6. (a) A division ring has no zero divisors. Prove it.   2½

(b) An arbitrary intersection of ideals of a ring is an ideal of the ring. Prove it.   2½

7. (a) Prove that the set of integers is a subring of the ring of rationals but is not an ideal of the ring of rationals.   2½

(b) Every quotient ring is a homomorphic image of the ring. Prove it.   2½

Unit IV

8. (a) Prove that every Euclidean ring possesses unity element.   2½

(b) Show that every non-zero prime ideal of a principal ideal domain is maximal.   2½

9. (a) If R is a unique factorization domain (UFD), then show that every prime element in R generates a prime ideal of R.   2½

(b) Show that $f(x) = x^3 + y^3 + xy$ is irreducible over C, the field of complex numbers.   2½

GSQ/D-17

1073

MATHEMATICS

Numerical Analysis

BM-353

Time : Three Hours]

[Maximum Marks : 20

Note : Attempt *Five* questions in all, selecting *one* question from each Section. All questions carry equal marks.

(Compulsory Question)

(अनिवार्य प्रश्न)

1. (a) State Gauss Backward interpolation formula. 1

(b) Evaluate the following interval of differencing being unity $(2\Delta + 1)^2 (x + 2)^2$. 1

(c) An unbiased coin is tossed 8 times. Find by using binomial distribution the probability of getting at least 6 heads. 1

(d) State Bessel's formula. 1

Section I

2. (a) From the following table, find the number of students who obtained marks less than 45 : 2

Marks	No. of Students
30-40	31
40-50	42
50-60	51
60-70	35
70-80	31

   (b) Find the lowest degree polynomial which statisfies the following data : 2

x	0	1	2	3	4	5
$f(x)$	0	3	8	15	24	35

3. (a) State and prove Newton's divided difference interpolation formula for unequal intervals. 2

   (b) Use Lagrange's formula to find $f(6)$ from the following data : 2

x	2	5	7	10	12
$f(x)$	18	180	448	1210	2028

Section II

4. (a) Use Sterling formula to find y_{28} given : 2

   $y_{20} = 49225$, $y_{25} = 48316$

   $y_{30} = 47236$, $y_{35} = 45926$

   $y_{40} = 44306$.

   (b) Find the value of $\sin 32°30'$ from the table : 2

$x°$	$\sin x°$
30°	.5000
31°	.5150
32°	.5299
33°	.5446
34°	.5592

5. (a) It is given that 2% of screws manufactured by a company are defective. Using Poisson distribution, find the probability for just one defective screw in a packet of 100 screws. 2

   (b) A bag contains 3 white any 4 red balls. Three balls are drawn one by one with replacement. Find the probability distribution of the number of red balls. 2

Section III

6. (a) Find the value of $f'(x)$ at $x = 0.04$ from the following table : 2

x	$f(x)$
0.01	0.1023
0.02	0.1047
0.03	0.1071
0.04	0.1096
0.05	0.1122
0.06	0.1148

(b) Find the largest eigen value and the corresponding eigen vector of the matrix : 2

$$A = \begin{bmatrix} 1 & -3 & 2 \\ 4 & 4 & -1 \\ 6 & 3 & 5 \end{bmatrix}$$

7. (a) Transform the matrix : 2

$$A = \begin{bmatrix} 1 & 2 & -1 \\ 2 & 1 & 2 \\ -1 & 2 & 1 \end{bmatrix}$$ to tri-diagonal form by House-holder's method.

(b) Using Jacobi method, find all the eigen values and eigen vectors of the matrix : 2

$$A = \begin{bmatrix} 1 & -2 & 4 \\ -2 & -5 & -2 \\ 4 & -2 & 1 \end{bmatrix}$$

Section IV

8. (a) Evaluate $\int_0^1 \frac{1}{1+x^2} dx$, using Simpson's $\frac{1}{3}$ rd rule, $h = \frac{1}{4}$. Hence compute an approximate value of π. 2

(b) Evaluate $\int_0^2 \sqrt{1+4x}\ dx$ by Gaussian 2 point formula.

[$u_1 = -0.57735,\ u_2 = -u_1,\ w_1 = w_2 = 1$] 2

9. (a) Apply Euler's method to solve $\frac{dy}{dx} = x + y$, $y(0) = 0$, choosing the step length $= 0.2$. Find $y(1.4)$. 2

(b) Use Picard's method to find the third approximation of the following differential equation : 2

$$\frac{dy}{dx} = y - 1,\ y(0) = 2$$

7. What is Constitutionalism ? Explain its problems and reforms. 16

संविधानवाद क्या है ? इसकी समस्याओं और समाधान पर प्रकाश डालिए।

Unit IV

इकाई IV

8. What role do civil services play in a modern welfare state ? 16

आधुनिक कल्याणकारी राज्य में नागरिक सेवाएँ क्या कार्य करती हैं ?

9. Discuss the ways and means to ensure independence of Judiciary. 16

न्यायपालिका की स्वतन्त्रता सुनिश्चित करने के उपायों का वर्णन कीजिए।

GSQ/D-17

1080

POLITICAL SCIENCE

Opt (i)

Comparative Politics

Time : Three Hours]　　[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** (Short Answer type) is compulsory. Each question carries 16 marks.

प्रत्येक इकाई से **एक** प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए। प्रश्न संख्या **1** (लघु उत्तरीय प्रश्न) अनिवार्य है। प्रत्येक प्रश्न 16 अंकों का है।

(Compulsory Question)

(अनिवार्य प्रश्न)

1. (a) Which are the traditional methods of Comparative Politics ? 2

तुलनात्मक राजनीति की परम्परागत विधियाँ कौनसी हैं ? 2

(b) Give any *two* limitations of Behaviourism. 2

व्यवहारवाद की कोई दो सीमाएँ लिखिए। 2

(c) Give *two* points of criticism of Political Development approach of studying Comparative Politics.

तुलनात्मक अध्ययन के राजनीतिक विकास उपगम की दो आलोचनाएँ दीजिए ।   2

(d) What are *two* bases or determinant factors of Political Culture ?

राजनीतिक संस्कृति के कोई दो आधार या निर्धारक तत्व बताइए ।   2

(e) What do you mean by enacted Constitution ?

निर्मित संविधान से आपका क्या अभिप्राय है ?   2

(f) Write *two* merits of Flexible Constitution.

लचीले संविधान के दो गुण बताइए ।   2

(g) What are *two* advantages of Bi-cameral legislature ?

द्विसदनीय विधानपालिका के दो लाभ बताइए ।   2

(h) What do you mean by Separation of Powers ?   2

शक्तियों के पृथक्करण का क्या अर्थ है ?

Unit I
इकाई I

2. Discuss the utility of the study of Comparative Politics.   16

तुलनात्मक राजनीति के अध्ययन की उपयोगिता का विवेचन कीजिए ।

3. Discuss the meaning and scope of Comparative Method.   16

तुलनात्मक पद्धति की परिभाषा और इसके क्षेत्र की व्याख्या कीजिए ।

Unit II
इकाई II

4. Critically discuss the structural-functional approach of Comparative Politics.   16

तुलनात्मक राजनीति के संरचनात्मक-कार्यात्मक दृष्टिकोण का आलोचनात्मक वर्णन कीजिए ।

5. Define Political Culture and discuss its main components.   16

राजनीतिक संस्कृति की परिभाषा व मुख्य तत्वों का वर्णन कीजिए ।

Unit III
इकाई III

6. What do you mean by Constitution ? Describe the fundamental features of good constitution.   16

संविधान से आपका क्या तात्पर्य है ? अच्छे संविधान की मौलिक विशेषताओं का वर्णन कीजिए ।

GSO/D-17

1082

MUSIC VOCAL THEORY
Part- I (Vocal)

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

प्रत्येक इकाई से **एक** प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए। सभी प्रश्नों के अंक समान हैं।

Unit I
इकाई 1

1. Describe the historical study and detailed description of Raga Basant.

राग बसंत की ऐतिहासिक पृष्ठभूमि का विस्तारपूर्वक वर्णन कीजिए।

2. Write the Notation of one Vilambit Khayal in any one Rage of your prescribed syllabus.

अपने पाठ्यक्रम के राग में से एक विलम्बित ख़याल की स्वरलिपि लिखिए।

3. Write about Sooltaal with Thah, Dugun and Chaugun Layakaries.

   सुल्ताल को ठाह, दुगुन और चौगुन लयकारियां सहित लिखिए।

4. Write about Dadra and Sooltaal with Dugun and Chaugun Layakaries.

   दादरा ताल को ठाह, दुगुन और चौगुन लयकारियां सहित लिखिए।

Unit II
इकाई II

5. Write in detail the contribution of K.C.D. Brihaspati in Indian Classical music.

   आचार्य के.सी.डी. बृहस्पति का भारतीय संगीत में क्या योगदान है? विस्तारपूर्वक लिखिए।

6. Write in detail the contribution of Pt. Lal Mani Mishra in Indian classical music.

   पं. लाल मणि मिश्रा का भारतीय संगीत में क्या योगदान है? विस्तारपूर्वक लिखिए।

7. What is Notation System? What are the merits and demerits of Notation system?

   स्वरलिपि पद्धति क्या है? स्वरलिपि पद्धति के लाभ और हानियाँ क्या है?

8. What is importance of music in Fine Arts?

   ललित कलाओं में संगीत का क्या महत्व है?

Unit III
इकाई III

9. Write about the time theory of Ragas.

   रागों के समय सिद्धांत के विषय में विस्तारपूर्वक लिखिए।

10. Compare the teaching of music through Gharana and educational institution.

    घराना और संस्थागत शिक्षण पद्धति की तुलना कीजिए।

GSQ/D-17   1083

MUSIC (Instrumental)

Paper I (Theory)

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section. All questions carry equal marks.

प्रत्येक खण्ड से कम से कम **एक** प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए । सभी प्रश्नों के अंक समान हैं ।

Section A

खण्ड 'अ'

1. Write a notation in Maseetkhani Gat (Slow Gat) with two Todas and description of the Raga from your syllabus.

    अपने पाठ्यक्रम में से किसी भी **एक** राग की मसीतखानी गत (स्लो गत) दो तोड़ों सहित एवं राग परिचय भी लिखिए ।

2. Write the detailed description of any *two* of the following Ragas :

    (i)   Raga Todi

    (ii) Puriya Dhanashri

    (iii) Basant

    (iv) Miyan Malhar.

निम्नलिखित में से किन्हीं दो रागों का पूर्णरूपेण परिचय, विशेषताएँ इत्यादि लिखिए :

(i) राग तोड़ी
(ii) पूरिया धनाश्री
(iii) वसन्त
(iv) मियाँ मल्हार।

3. Write a Razakhani Gat (Drut Gat) of Rag Puriya Dhanashri *or* Raga Basant with two Todas.   8

राग पूरिया धनाश्री **या** राग वसन्त, किसी भी एक राग की रज़ाखानी गत (द्रुत गत) दो तोड़ों सहित लिखिए।

Section B
खण्ड 'ब'

4. What do you know about notation system ? Also write its origin and development.   8

स्वरलिपि पद्धति के बारे में आप क्या जानते हैं ? इसकी उत्पत्ति एवं विकास के बारे में भी लिखिए।

5. Write the description in Ekgun. Dugun. Chaugun Layakaries of Dhamar Tala and Jhaptal.   4+4=8

धमार ताल और झपताल दोनों तालों का परिचय, एकगुन, दुगुन, चौगुन लयकारियों में लिखिए।

6. Write in detail about Indian Orchestra. Also write its origin and development.   8

भारतीय वाद्यवृंद की उत्पत्ति तथा विकास के विषय में विस्तारपूर्वक लिखिए।

Section C
खण्ड 'स'

7. What is the contribution of Nikhil Benerjee in Sitar playing ? Write in detail.   8

निखिल बैनर्जी का सितार वादन के विकास में क्या योगदान रहा ? विस्तारपूर्वक लिखिए।

8. Write in detail about the role of Music in International Cultural Exchange.   8

अन्तर्राष्ट्रीय सांस्कृतिक आदान-प्रदान में संगीत की क्या भूमिका है ? विस्तारपूर्वक लिखिए।

9. Write about the life-sketch of Ustad Mushtak Ali Khan and his contribution in Music field.   8

उस्ताद मुश्ताक अली खाँ का जीवन-परिचय बताते हुए, उनका संगीत के क्षेत्र में योगदान लिखिए।

10. Write one Gat in Jhaptal *or* Rupaktal with one Toda.   8

झपताल **या** रूपकताल में कोई एक गत एक तोड़ा सहित लिखिए।

Roll No. ....

GSQ/D-17

MATHEMATICS

BM-351

Real Analysis

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) Give an example to show that if $f + g \in R[a, b]$ then it is not necessary that f and $g \in R[a, b]$. **2**

    (b) Show that every subset of a discrete metric space is open. **2**

    (c) Define and give an example of a nowhere dense set. **2**

    (d) Prove that every function from an infinite discrete metric space to any metric space is continuous. **2**

(b) In a metric space, every open sphere is an open set. **4**

7. (a) Prove that if every Cauchy sequence in a metric space has a convergent subsequence, then the space is complete. **4**

    (b) In a metric space (X, d), a subset of X is closed if and only if its complement is open. **4**

Section IV

8. (a) Let f be a function of (X, d) into (Y, $d*$). If for every sequence (a_n) in X converging to a, the sequence ($f(a_n)$) in Y converges to $f(a)$, prove that f is continuous at $a \in$ X. **4**

    (b) Prove that every compact metric space is complete and totally bounded. **4**

9. (a) Prove that a metric space is connected if and only if it is not the union of two non-empty disjoint open sets. **4**

    (b) Prove that continuous image of a compact metric space is compact. **4**

Section I

2. (a) The necessary and sufficient condition for a bounded function f to be integrable on $[a, b]$ is that for each $\in > 0$, there corresponds a $\delta > 0$ such that for every partition P of $[a, b]$ with $\|\mathrm{P}\| < \delta$, $\mathrm{U}(f, \mathrm{P}) - \mathrm{L}(f, \mathrm{P}) < \in$.   4

(b) Let f be defined on $\left[0, \dfrac{\pi}{4}\right]$ by:

$$f(x) = \begin{cases} \cos x & , \quad x \in \mathrm{Q} \\ \sin x & , \quad x \in \mathrm{R} - \mathrm{Q} \end{cases}$$

Show that f is not Riemann integrable on $\left[0, \dfrac{\pi}{4}\right]$.   4

3. (a) Verify first mean value theorem for the integral

$$\int_0^2 \left(4x^3 - 3x^2 - 4x\right) dx.$$ 4

(b) Prove that a continuous function on $[a, b]$ is integrable on $[a, b]$. Is the converse true? ...   4

Section II

4. (a) Test the convergence of the integral:

$$\int_0^{2} \frac{dx}{(x - b)^2}$$ 4

(b) Examine the convergence of:

$$\int_0^{x} \frac{x + \tan^{-1} x}{\left(1 + x^4\right)^{1/3}} dx$$ 4

5. (a) Discuss the convergence of:

$$\int_0^{x} \frac{\cos ax - \cos bx}{x^2} dx$$ 4

(b) Evaluate:

$$\int_0^{\infty} \frac{\tan^{-1} \alpha x}{x(1 + x^2)} dx \text{ if } \alpha \geq 0.$$ 4

Section III

6. (a) For $1 \leq p < \infty$, let

$$l_p = \{x : x = (x_n), \Sigma |x_n|^p < \infty, x_n \in \mathrm{R} \; \forall \; n\}$$

Let $d(x, y) = \left(\displaystyle\sum_{n=1}^{\infty} |x_n - y_n|^p\right)^{1/p}$

$\forall \; x, y \in l_p.$

Prove that (l_p, d) is a metric space.   4

GSQ/D-17

1098

MATHEMATICS

BM-352

Groups and Rings

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) If a finite group of order '*n*' contains an element of order '*n*', then show that group must be cyclic. 2

   (b) With the help of an example show that the inner automorphism corresponding to two distinct elements of a group may be same. 2

   (c) Show by an example that unity of a ring and its subring is not same. 1

   (d) Prove that a prime element in a principal ideal domain is irreducible. 2

   (e) Define Primitive Polynomial. 1

9. (a) Prove that if F is a field, then F[*x*] may not be a field. 4

   (b) Show that the polynomial $8x^3 - 6x - 1$ is irreducible over Q. 4

Unit I

2. (a) Prove that if (G, •) is an abelian group, then for all $a, b \in$ G and for all integers n :

$$(a \cdot b)^n = a^n \cdot b^n.$$

4

(b) Prove that the number of generators of a finite cyclic group of order n is $\phi(n)$, where $\phi(n)$ is Euler's ϕ function.

4

3. (a) If M and N are normal subgroups of G, prove that MN is also a normal subgroup of G.

4

(b) Prove that any *two* right (left) cosets of a subgroup are either disjoint *or* identical.

4

Unit II

4. (a) The necessary and sufficient condition for a homomorphism f to be one-one is that Kernel $f = \{e\}$, where e is identity of domain.

4

(b) Let z(G) be centre of a group G. If G/z is cyclic, then prove that G is abelian.

4

5. (a) Let G be an infinite cyclic group. Show that order of Aut(G) is 2.

4

(b) Define Cyclic permutation. Multiply the cycles (1 2 3) and (5 6 4 1) represented in a permutation of degree 6 on {1, 2, 3, 4, 5, 6}.

4

Unit III

6. (a) Prove that a division ring (Skew field) has no zero divisors.

4

(b) Prove that the order of each non-zero element of an integral domain (regarding the elements as the members of additive group) is same.

4

7. (a) Prove that the ring of Integers, is a principal ideal ring.

4

(b) Prove that every homomorphic image of a ring R is isomorphic to some quotient ring.

4

Unit IV

8. (a) Let R be an Euclidean ring and a, b be two non-zero elements of R. Then show that if b is not a unit in R then $d(ab) > d(a)$.

4

(b) Prove that an element in a principal ideal domain is prime element iff it is irreducible.

4

GSQ/D-17

1099

MATHEMATICS

BM-353

Numerical Analysis

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) Evaluate $\Delta(x^2 + \sin x)$.

   (b) Find Binomial distribution whose mean is 3 and variance 2.

   (c) Define Simpson's $\frac{3}{8}$th Rule of Integration.

   (d) Write Lagrange's interpolation formula.   **4**

Section I

2. (a) Evaluate $(2A + 1)^2 (x + 2)^2$, interval of differencing being unity.   **3**

Section IV

8. Solve $\frac{dy}{dx} = x + y$ using Taylor's series method. Start from $x = 1$, $y = 0$ and carry t_0, $x = 1.2$ with $h = 0.1$. Compare the numerical solution obtained with the exact solution.   **6½**

9. (a) Use Picard's method to find the third approximation of the following differential equation :

   $$\frac{dy}{dx} = 2 - \frac{y}{x}, \quad y(1) = 2$$ **3½**

   (b) Evaluate $\int_0^6 \frac{1}{1+x^2} dx$ by using Trapezoidal Rule.   **3**

(b) State prove Newton-Gregory formula for Backward interpolation. **3½**

Section III

3. (a) Find the polynomial of the lowest degree which assumes the values 3, 12, 15, –21 when x has the values 3, 2, 1, –1 respectively. **3**

(b) By means of Lagrange's formula prove that : **3½**
$$u_1 = u_3 - 0.3(u_5 - u_{-3}) + 0.2(u_{-3} - u_{-5})$$

4. (a) Prove that mean and variance of Poisson distribution are same. **3½**

(b) If X follows a binomial distribution with mean 4 and variance 2. find P($|x - 4| \le 2$). **3**

5. (a) State and prove Gauss Backward interpolation formula. **3½**

(b) If x be the normal variate with mean 50 and S.D = 8; find the probability that : **3**
$$x \le 60$$

6. (a) Find the first derivative of the function $y = f(x)$ tabulated below at the point $x = 10$. **3**

x	3	5	11	27	34
$f(x)$	–13	23	899	17315	35606

(b) Using power method, find the largest eigen value and the corresponding eigen vector of the matrix : **3½**
$$A = \begin{bmatrix} 1 & -3 & 2 \\ 4 & 4 & -1 \\ 6 & 3 & 5 \end{bmatrix}$$

7. Using Jacobi's method, find all the eigen value and the eigen vector's of the matrix : **6½**
$$\begin{bmatrix} 2 & 3 & \dfrac{1}{\sqrt{2}} \\ 3 & 2 & \dfrac{1}{\sqrt{2}} \\ \dfrac{1}{\sqrt{2}} & \dfrac{1}{\sqrt{2}} & 5 \end{bmatrix}$$

Roll No. ....

Total Pages : 03

GSQ/D-17

1104

PHYSICS

Paper : IX

Quantum and Laser Physics

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) What do you mean by normalisation of a wave function ?

   (b) Define reflection coefficient and transmission coefficient.

   (c) What do you mean by population inversion and why it is necessary for light amplification ?

   (d) What are the advantages of a semiconductor laser over other lasers ?

   2×4=8

Unit I

2. (a) What do you understand by wave-particle dualism ? Describe Davison and Germer experiment to illustrate the wave nature of matter. **5**

   (b) Derive time independent Schrödinger equation. **3**

3. (a) Derive expression for probability current density. **3**

   (b) What is the difference between classical mechanics and quantum mechanics ? **2**

   (c) Show that the DeBroglie hypothesis of matter waves is in agreement with Bohr's postulate of quantization of angular momentum. **3**

Unit II

4. Write down Schrödinger equation for a free particle in one-dimensional box. Solve it to get eigen functions and show that the eigenvalues are discrete. **8**

5. Derive Schrödinger equation for linear harmonic oscillator and determine the normalised wave functions and the energy levels of the oscillator. Discuss the significance of zero point energy. **8**

Unit III

6. Derive Fuchbauer Ladenberg formula. **8**

7. (a) Show that population inversion cannot be achieved using only two energy levels. **3**

   (b) Discuss the properties of directionality and monochromaticity in case of laser light. **5**

Unit IV

8. Discuss with suitable diagram principle, construction and working of a Ruby laser. Why do we get output in the form of pulses ? Why each pulse consist of spikes ? **8**

9. (a) Why even a 2 mW He-Ne laser is much more brighter than a 100 W ordinary bulb ? **2**

   (b) Compare the laser lights from a He-Ne and a Ruby laser. **2**

   (c) Discuss the use of lasers in medicine. **4**

Roll No. ....

Total Pages : 03

GSQ/D-17

1106

PHYSICS

Paper : X

Nuclear Physics

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks. Non-programmable calculator is allowed.

1. (a) Calculate the value of electron magentic moment. **2**

   (b) What is neutrino theory of β-decay ? **2**

   (c) Why electron cannot be accelerated in cyclotron ? **2**

   (d) Give some conservation laws of nuclear reactions. **2**

Unit I

2. (a) Describe the structure of nucleus. Explain, why electrons cannot be the constituent of nucleus ? **6**

(c) A nucleus with mass numbers $A = 255$ split into fragments whose mass numbers are in the ratio $3 : 2$. Find the separation between the fragments at the moment of splitting. **2**

Unit II

3. (a) What is Moseley's law? Discuss how charge of nucleus is determined from it. **6**

(b) Find the density of $_{29}Cu^{63}$ nucleus. **2**

4. Discuss in detail, the theory of α-disintegration with the help of quantum mechanical tunneling. **8**

5. (a) Derive a relation between the angle of scattering of the photon and that the angle of electron in Compton effect. Discuss the result. **6**

(b) Compute the maximum energy of a Compton recoil electron resulting from absorption in Al of 2.4 MeV γ-rays. **2**

Unit III

6. Explain the principle of linear accelerator. Discuss the expression for the energy of the particle and length of cylinders in terms of the constants of the apparatus. **8**

7. (a) Explain the principle, construction and working of a proportional counter. Give its application how it can be used for neutron detection. **6**

(b) A GM counter wire collects 10 electrons per discharge. When the counting rate is 500 counts per minute, what will be the average current in the circuit ? **2**

Unit IV

8. Define Q-value of a reaction. Derive an expression for Q-value in case of two body system. **8**

9. (a) Explain the terms nuclear fission and fusion with the help of suitable examples. **5**

(b) A reactor is developing energy at the rate of 32×10^6 watts. How many atoms of $_{92}U^{236}$ undergo fission per second ? Assume that on an average energy of 200 MeV is released per fission. **3**

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GSQ/D-17

CHEMISTRY

Paper : XV

CH-301

Total Pages : 04

1108

Inorganic Chemistry

Time : Three Hours] [Maximum Marks : 32

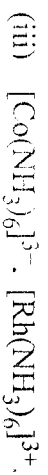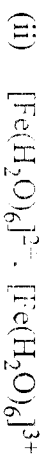**Note :** Attempt *Five* questions in all, selecting at least *two* questions from each Section. Q. No. **1** is compulsory.

1. (a) Give the salient features of crystal field theory. **2**

   (b) Calculate μ_s for V^{3+} and N_i^{2+} ions. **2**

   (c) Write a brief note on selection rules for d-d transitions. **2**

   (d) What do you mean by trans effect ? Name *two* powerful trans directing ligands. **2**

Section A

2. (a) Calculate CFSE for the following :

   (i) d^4 (High Spin Octahedral)

   (ii) d^8 tetrahedral. **2**

---

9. (a) Determine the ground terms for Low Spin and High Spin for d^6 octahedral configuration. **3**

   (b) Why do tetrahedral complex of Mn(II) are more intensely coloured than octahedral complexes of Mn(II). **3**

(b) Which complex has higher value of Δ and why?   3

(i) $[Co(CN)_6]^{3-}$, $[Co(NH_3)_6]^{3+}$

(ii) $[Fe(H_2O)_6]^{2-}$, $[Fe(H_2O)_6]^{3+}$

(iii) $[Co(NH_3)_6]^{3-}$, $[Rh(NH_3)_6]^{3+}$.

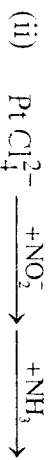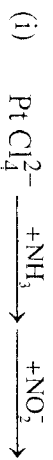(c) Define Pairing Energy.   1

3. (a) Explain bonding and magnetic moments of $[Fe(H_2O)_6]^{3+}$ and $[Fe(CN)_6]^{3-}$ complexes in terms of crystal field theory.   3

(b) Name the factors affecting the stability of a complex. Elaborate any *one* of them.   3

4. (a) Show stereochemistry of substitution in the following reactions :   3

(i) $Pt\,Cl_4^{2-} \xrightarrow{+NH_3} \xrightarrow{+NO_2^-}$

(ii) $Pt\,Cl_4^{2-} \xrightarrow{+NO_2^-} \xrightarrow{+NH_3}$

(b) Explain the terms Dissociative and Intercharge dissociative.   2

(c) How are Δt and Δo related ?   1

Section B

5. (a) How is overall stability constant β_4 related to stepwise stability constants K_1, K_2......K_4 ?   4

(b) Discuss the thermodynamic stability of a complex.   2

6. (a) Define magnetic susceptibility. How does it vary with temperature ?   3

(b) Explain the phenomenon Ferromagnetism and Antiferromagnetism.   3

7. (a) Describe the temperature independent paramagnetism.   3

(b) Explain Faraday's method for measuring magnetic susceptibility.   3

8. (a) What are Orgel diagrams ? Draw and discuss orgel diagram for $[T_1(H_2O)_6]^{3+}$ and $[N_1(H_2O)_6]^{2+}$ complex ion.   3

(b) What are microstates ? Calculate no. of microstates for p^2 and d^2 configurations.   3

GSO/D-17

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CHEMISTRY

Paper XV (CH-301)

Inorganic Chemistry

Time : Three Hours]   [Maximum Marks : 27

Note : Attempt *Five* questions in all, selecting at least *one*
question from each Section.

Section A

1. (a) How does CFT account for the fact that $[CoF_6]^{3-}$ is
         paramagnetic but $[Co(NH_3)_6]^{3+}$ is diamagnetic. 2½

    (b) Which complex has higher value of Δ and why ? **2**

         (i) $[Co(CN)_6]^{3-}$, $[Co(NH_3)_6]^{3+}$

         (ii) $[Co(H_2O)_6]^{3+}$, $[Rh(H_2O)_6]^{3+}$

    (c) What is meant by spectrochemical series ?   **1**

2. (a) Give the limitations of valence bond theory.   **2**

    (b) Why Ti^{3+} ion is purple in aqueous solution while
         Zn^{2+} ion is colourless ?   **2**

    (c) Calculate CFSE for the following :

         (i) d^7-weak field octahedral

(ii) d^9 tetrahedral

(iii) d^5-strong field octahedral. 1½

3. (a) Among the $[Ni(en)_3]^{2+}$ and $[Ni(NH_3)_6]^{2+}$ complexes which is more stable and explain why ? 2½

(b) Define the following substitution reactions observed in rate determining steps : 3

(i) Associative

(ii) Interchange associative.

4. (a) Define trans effect and ligands with transdirecting effect. Explain with a suitable example. 2½

(b) What do you mean by Labile complexes and Inert complexes ? 2

(c) Name *two* powerful trans directing ligands. 1

Section B

5. (a) Define magnetic susceptibility. How does it vary with temperature ? 2½

(b) Explain Ferromagnetism and Antiferromagnetism. 3

6. (a) Calculate the magnetic moments for ions Cr^{3+}, V^{4+} and Fe^{3+} from spin only formula. 1½

(b) Explain the Gouy's experiment to determine the magnetic behaviour of a substance. Give advantages of Gouy's method. 4

7. (a) Calculate number of microstates for oxygen. 1½

(b) Write the term symbols for $3p^2$ configuration. 2

(c) Explain vibronic coupling. 2

8. (a) Discuss the orgel diagram for d^1 and d^9 system. 3

(b) State and explain selection rules for d-d transition. 2½

GSQ/D-17

CHEMISTRY

Paper : XVI

CH-302

Physical Chem. Theory

Time : Three Hours]   [Maximum Marks : 32

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Select *two* questions from each Section A and Section B.

1. (a) What are well behaved functions ?

    (b) What happens if the length of one-dimensional box is made infinite ?

    (c) What is a linear operator ?

    (d) Define group moments.

    (e) Which of the following has odd electron ?

        (i) NO_2

        (ii) N_2O

        (iii) N_2O_4

        (iv) N_2O_5.

---

7. (a) What do you understand by normal modes of vibrations of a polyatomic molecules ? Show diagrammatically the different normal modes of vibrations of CO_2 and H_2O.

    (b) Give advantages of Raman Spectra on I.R Spectra.   2

    (c) Write a note on Relative intensities of Rotational spectral lines.   1

    (d) Give experimental details of microwave spectroscopy.   2

                                                                                1

Section C

8. Write short notes on the following :

    (a) Degrees of freedom of motion.   2

    (b) Doppler effect and lifetime broadening.   2

    (c) Intensities of spectral lines.   2

9. (a) Derive an expression for vibrational rotational spectra.   2

    (b) How P, Q and R branches of lines are produced in Vib rot. spectra.   2

    (c) Explain Raman effect on the basis of Polarizability of molecules.   2

(f) What is principle of equipartition of energy ?

(g) Which of the following molecules show rotational spectra HCl, CO, CO_2 and H_2.

(h) What is Rayleigh's criterion for resolution of two wavelengths λ and $\lambda + \delta\lambda$?

1×8

Section A

2. (a) Describe the spectral distribution of black body radian. 2

(b) Explain Stefan's Boltzmann Law and Wien's Displacement Laws. 2

(c) The Threshold wavelength for photoelectric Emission in Tungsten is 2300 Å. Calculate wavelength of light used in order to eject electrons with energy of 1.5 eV. 2

3. (a) Derive an expression for energy for a particle in one dimensional box and obtain the expression for eigen function and eigenvalue of energy. 3

(b) Write notes on the following :

(i) Existence of zero point-energy

(ii) Quantization of energy

(iii) Photoelectric effect.

4. (a) What is optical activity ? What is the cause of optical activity ? Briefly explain with suitable examples. 2

(b) A solution of a certain optically active substance in water containing 1.56 grams in 100 ml rotated polarised light 4.01° in a polarimeter which had a cell 20 cm long. The D-line of sodium was used as a light source. Calculate the specific rotation. 2

(c) What is the effect of temperature on polarization ? 2

5. (a) Derive relationship between specific susceptibility and magnetic permeability of a material of density ρ in g/c.c. 2

(b) Explain Guy's method for magnetic susceptibility. 2

(c) Write application of Dipole Moment in differentiating. (i) Cis and trans Isomers (ii) in calculating the percentage ionic character. 2

Section B

6. (a) Why does one get band spectra of molecules ? 2

(b) What is the effect of isotopic substitution on rotational spectra ? 2

(c) Out of H_2, O_2, N_2, HCl, CO, NO which will give pure vibrational spectra and why ? 2

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CHEMISTRY

Paper : XVI-302

Physical Chemistry

Time : Three Hours]

[Maximum Marks : 26

Note : Attempt *Five* questions in all, selecting at least *two* questions from each Section. All questions carry equal marks.

Section A

1. (a) Write postulates of quantum mechanics. 3

   (b) Evaluate the following : 3

   (i) $[x, \hat{p}_x]$

   (ii) $\left(\dfrac{d}{dx} - x\right)\left(\dfrac{d}{dx} + x\right)$.

2. (a) Derive Planck's radiation law. 3

   (b) Write a note on Photoelectric effect. 2

3. (a) Explain the results of particle in one-dimentional box. 2½

(b) The bond length of HBr is 1.40Å and its dipole moment is 0.78 D. Calculate the percentage ionic character of the H-Br bond. 2½

4. (a) Write applications of dipole moment. 3

(b) Write a note on Gouy's method for measurement of magnetic susceptibility. 2

Section B

5. (a) Calculate the wave number for a radiation having wavelength 5000 Å. 1½

(b) Calculate the vibrational degree of freedom in the following :

(i) C_2H_2

(ii) H_2S

(iii) benzene. 4½

6. Which of the following are microwave active molecules :

(i) O_2

(ii) CO_2

(iii) H_2O

(iv) NH_3

(v) CH_4 2½

(b) Explain isotope effect in rotational spectra. 2½

7. (a) Explain vibration-rotation spectra for diatomic molecules. 3

(b) Calculate the force constant for the bond in H-Cl from the fact that fundamental vibration frequency is 8.6×10^{13} S⁻¹. 2

8. (a) Why are Stokes' and Antistokes' lines observed along with Rayleigh line ? 2½

(b) Explain the Raman effect in terms of Polarizability. 2½

Total Pages : 04

Time : Three Hours] [Maximum Marks : 32

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory. Select *two* questions from each Section.

Compulsory Question

1. (a) Indicate 'True' *or* 'False' for the following statements regarding PMR : 1×3

   (i) Deshielding shifts the absorption down-field.

   (ii) Value of 'J' depends on applied magnetic field strength.

   (iii) Value of S is independent of radiofrequency.

   (b) Give names of constituent units of Lactose and type of linkage between them. 1

   (c) Name a carbohydrate which is not optically active. 1

   (d) Draw structure of Erythro-2,3-dihydroxybutanoic acid. 1

---

8. (a) Give the limitations of open chain structure of glucose.

   (b) How organozine compounds react with H_2O and organolithium compounds react with $CH_2=CH_2$? 4,2

9. (a) Prepare the following from CH_3MgBr :

   (i) Propanol-1

   (ii) Acetic acid

   (iii) Acetone.

   (b) How would you prepare G.R. Mention the important precautions taken ?

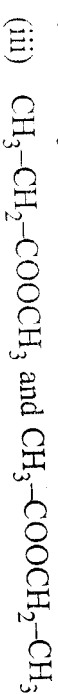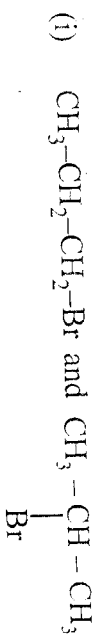   (c) Prepare Benzene from suitable G.R. 3,2,1

(e) Prepare TMS (Tetramethyl silane) from suitable G.R. 1

(f) Why organolithium compounds are more reactive than GR. ? 1

Section I

2. (a) Why is TMS used as reference compound in PMR spectroscopy ? 3

(b) How will you distinguish between the following pairs of compounds on the basis of PMR spectroscopy : 3

(i) CH_3–CH_2–CH_2–Br and CH_3–CH–CH_3
   |
   Br

(ii) CH_3–CH_2–C≡C–H and CH_3–C≡C–CH_3

(iii) CH_3–CH_2–$COOCH_3$ and CH_3–$COOCH_2$–CH_3

3. (a) Explain the following :
(i) Spin active nuclei
(ii) Coupling constant
(iii) Peak area of signal.

(b) A compound having molecular formula $C_2H_3Br_3$ exhibits two PMR signals : 2×3
(i) doublet, δ:4·2 (2H)
(ii) triplet, δ:5·8 (1H)
What is the structure of the compound ?

4. (a) Give an account of rules of splitting the proton signal.

(b) What do you mean by Proton exchange process ? Illustrate with example.

(c) Define induced magnetic field. 3,2,1

5. (a) How many PMR signals would cis- and trans-1,2-Dibromocyclo propane show ?

(b) Define chemical shift. How is it measured ?

(c) Give structural formulae of compounds with molecular formulae :
(i) C_4H_9Br
(ii) $C_2H_4Cl_2$
showing one PMR signal. 2,2,2
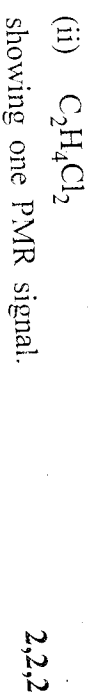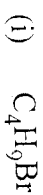
Section II

6. (a) Give mechanism of Glucosazone formation and explain Glucose and Fructose give same osazone.

(b) Draw Haworth Projection formula of Sucrose. Explain, why it is non-reducing dissacharide ? 2×3

7. (a) How would you convert the following :
(i) D-Glucose into D-Arabinose
(ii) D-Fructose into D-Glucose.

(b) Write a short note on Glycosides. 2×3

GSO/D-17

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CHEMISTRY

Paper XVII (CH-303)

Organic Chemistry

Time : Three Hours]   [Maximum Marks : 27

Note : Attempt *Five* questions in all. selecting at least *two* questions from each Section. All questions carry equal marks.

Section I

1. (a) Define 'Chemical Shift'. What are its units ? 1½

   (b) What is Coupling Constant ? What are its units ? 1½

   (c) Give the number of different types of proton signals in the following molecules : 2½

   (i) CH_3–$CHBr$–CH_3

   (ii) $CH_3CHClCH_2Cl$

   (iii) $CH_3CH_2COCH_3$

   (iv) CH_3CH_2CHO

   (v) $ClCH_2$–CH_2Cl

...will you differentiate the following pair of molecules on the basis of PMR spectroscopy : 3

1-Bromopropane and 2-Bromopropane

CH_3CHO and CH_3CH_2OH

Cis-2-Butene and trans-2-Butene.

(b) ...lain the PMR spectrum of Benzaldehyde, giving ... number of signals, splitting pattern, position ... number of each type of protons. 2½

6. (a) ...n organic compound has the molecular formula H_{14}. It shows the following PMR signals : 3

Singlet for 5H at δ7.26 ppm

Singlet for 9H at δ0.89 ppm.

...e the structure and name of the compound.

(b) ...tain the PMR spectrum of this compound.

(c) ...nt is magnetic equivalence of protons ? How ... the axial and equatorial hydrogens of ...ohexane can be distinguished ? 2½

7. ... organic compound shows PMR signal at 138 ... downfield with respect to TMS at 60 MHz. ...at will be the position of absorption of the ...nal at 100 MHz. Calculate its chemical shift in ...elta) and τ(tau) scale. 3

8. ...lain the PMR spectrum of Acetophenone. 2½

Section B

5. (a) What are the reducing and non-reducing sugars ? Give examples. 1½

(b) Write a note on Ruff's degradation. 2

(c) Convert D-Fructose into D-Glucose. 1½

6. (a) Write modern mechanism of Osazone formation of D-Fructose. 2

(b) How will you determine the ring size of cyclic structure of Glucose ? 2½

(c) Write Haworth structure of α-D-Fructofuranose. 1

7. (a) Give the main features and Haworth structure of Sucrose. 2½

(b) Prepare Glycoside from β-D-Glucose. 1½

(c) Write open chain structures of Ribose and 2-Deoxyribose. 1

8. (a) Write a note on Reformatsky reaction. 2

(b) Complete the following reactions : 3

(i) $CH_3MgBr + CH_2-CH_2$ (with epoxide oxygen) $\longrightarrow A \xrightarrow{H_3O^+} B$

(ii) $C_2H_5MgBr + CH_3CHO \longrightarrow A \xrightarrow{H_3O^-} B$

(iii) $C_6H_5COOH + CH_3Li \longrightarrow A \xrightarrow{H_3O^-} B$

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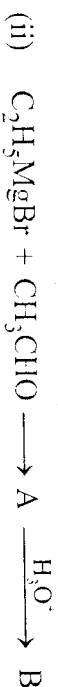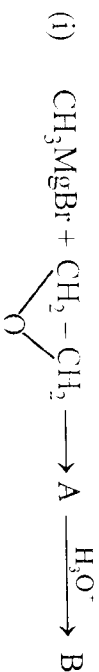
BOTANY

Paper I

Plant Physiology

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Define Imbibition.

   (b) Define Root pressure.

   (c) Name the mineral element involved in opening and closing of stomata.

   (d) Give empirical formulae of Chl-a.

   (e) What is the first stable product of C4 cycle.

   (f) Define Respiratory Quotient.

   (g) Apogeotropic roots.

   (h) Define photoperiods.

   1×8=8

Unit I

2. Discuss active and passive water absorption theories in plant.   8

3. Write notes on the following :
   (a) Antitranspirants.
   (b) Transpiration is necessary evil.   4+4

4. Discuss the effect of deficiency of Nitrogen and Potassium in the physiology of plant.   8

5. Write notes on the following :
   (a) Cytochrome-Pump Theory
   (b) Ringing or Girdling experiment.   4+4

Unit II

6. Write notes on the following :
   (a) Photo-oxidation of water
   (b) Crassulacean Acid Metabolism (CAM).   4+4

7. Write notes on the following :
   (a) Photorespiration
   (ಒ) Pentose Phosphate Pathway.   4+4

8. What is Seed Dormancy and discuss the various methods for its removal ?   8

9. What are tropic movements ? Explain the role of auxin in geotropism.   8

Roll No. ....

Total Pages : 02

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BOTANY

Paper : II

Ecology

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all Q. No. 1 is compulsory. Select *two* questions from each Unit. All questions carry equal marks. Draw relevant diagrams wherever necessary.

(Compulsory Question)

1. Explain the following :
   1×8=8

   (a) Lodging

   (b) Humus

   (c) Climax Community

   (d) Smog

   (e) Sciophytes

   (f) Parasitism

   (g) Soil conservation

   (h) Greenhouse gases.

P.T.O.

Unit I

2. Write notes on the following :

   (a) Mutualism
   3

   (b) Topography as an environmental factor.
   5

3. Describe the morphological and anatomical adaptations developed by hydrophytic plants.
   8

4. Write notes on the following :

   (a) Ecotypes and ecads.
   4

   (b) Effect of soil organisms on plants.
   4

5. Describe the physico-chemical properties of soil.
   8

Unit II

6. Discuss the qualitative characteristics of a community. 8

7. Write notes on any *two* of the following :
   4+4

   (a) Energy flow in an ecosystem

   (b) Carbon cycle

   (c) Control of water pollution.

8. Describe the various phytogeographical regions of India.
   8

9. Define plant succession. Explain the ecological succession on a bare rock (Lithosphere).
   8

2

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GSQ/D-17

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ZOOLOGY-I

Environmental Biology

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions each from Section A and Section B. Q. No. 1 is compulsory. Support your answer with neat and labelled diagram(s) wherever necessary.

1. Explain the following in brief :   10×1.5=15
   (a) Ecological niche
   (b) Edaphic factors
   (c) Ecological pyramids
   (d) Biomes
   (e) Reservoir pool
   (f) Biotic potential
   (g) Biosphere reserves
   (h) Catadromous migration
   (i) Competition exclusion principle
   (j) Bio-magnification.

Section A

2. Discuss the effects of temperature as a climatic factor on animals.   6¼

3. What is food chain ? Enlist the characteristics of a food chain. Describe *two* types of food chains with suitable examples.   6¼

4. What are biogeochemical cycles ? Explain the nitrogen cycle. Why is it called a perfect cycle ?   6¼

5. (a) Man made ecosystems.   3¼
   (b) Ecotone and edge effect.   3

Section B

6. (a) Define Population. Enlist characteristics of population.   3
   (b) Describe *two* types of growth curves.   3¼

7. What are threatened species ? Describe various categories of threatened species with suitable examples.   6¼

8. (a) Greenhouse effect and Global warming.   3¼
   (b) Noise pollution.   3

9. Define Interactions. Describe any *two* negative inter-specific interactions with at least *two* suitable example of each.   6¼

GSQ/D-17

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ZOOLOGY

Paper : II

Evolution and Developmental Biology

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory.
Select *two* questions from each Sections A and B. Draw
well labelled diagrams wherever necessary.

1. (a) What are Coacervates ?

    (b) Define Species.

    (c) What are connecting links ?

    (d) Define divergent evolution.

    (e) What is Archaeopterix ?

    (f) Define parthenogenesis.

    (g) What is vitellogenesis ?

    (h) What is Karyogamy ?

    (i) What is involution ?

    (j) Define regeneration.   1½×10=15

Section A

2. (a) Discuss the embryological evidences of Organic evolution. 4

   (b) List the conditions found on the primitive earth. 2¼

3. (a) Explain the factors of Lamarckism. 4

   (b) Discuss the significance of Lamarckism. 2¼

4. Explain the mechanisms of reproductive isolation. 6¼

5. (a) Write a brief note on Horses in Miocene. 4

   (b) Differentiate between micro-evolution and macro evolution. 2¼

Section B

6. Give an account on Parthenogenesis. 6¼

7. (a) Discuss the presumptive areas on blastula of Frog. 4

   (b) Write the characteristics of cleavage. 2¼

8. Explain the formation of extra-embryonic membranes in chick. Give their functions. 6¼

9. Discuss the mechanism of regeneration. 6¼

GSQ/D-17

1122

ELECTRONICS

Paper 1

Microprocessor Architecture and Programming-I

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Define fetch cycle   1

   (b) What do you mean by memory reference instruction ?   1

   (c) What do you mean by program status word ?   2

   (d) Discuss the functions of the following signals of 8085 microprocessor :

   HOLD and HLDA.   2

   (e) If carry flag is zero, then show that RAR instruction produces a division of accumulator contents by a factor of 2.   2

Unit IV

8. (a) Discuss the following instructions of 8085 :   4

   JNC address, CMP reg, XRA reg and STA address.

   (b) Discuss the functions of program counter, stack pointer and status flags in the architecture of 8085 microprocessor.   4

9. (a) Discuss DAA instructions of 8085. Explain how flags are affected with this instruction.   2

   (b) Explain the role of address buffer and address data buffer in the architecture of 8085 microprocessor.   4

   (c) Discuss LDAX rp and STAX rp instructions of 8085 microprocessor.   2

Unit I

2. (a) What are Microinstructions for :

   (i) LDA instruction

   (ii) ADD instruction.   4

   (b) Explain the function of controller/sequencer in SAP-I computer.   4

3. (a) Explain the instruction set of SAP-I computer. What is the size of MAR of the SAP-I computer ?   4

   (b) Write an assembly language program that perform the following operation in SAP-I computer 7–2+4+2–4. Use memory locations 7H to BH for the data.   4

Unit II

4. Draw the block diagram of the architecture of SAP-II computers. Discuss the working of each block.   8

5. (a) Write a program in assembly language using SAP-II instructions to add decimal numbers 80 and 46. Answer is to be stored in memory location 3100H.   4

   (b) Write a program in assembly language using SAP-II instructions to complement a number lying at 2100H memory location. Store the complement at 2101H.   2

(c) Discuss direct addressing and register addressing modes of SAP-II computer with one example in each mode.   2

Unit III

6. (a) What do you understand by subroutine ? Explain the use of stack and stack pointer in calling a subroutine. Explain any other use of stack.   4

   (b) What will be the contents of accumulator and flags, after the execution of SUB D instruction; if A = C3H and D = A2H.   4

7. (a) Write a delay subroutine program to introduce a time delay of 10 millisec using two registers. Decimal number 10 may be stored in register B. Let the system frequency is 2 MHz and

   RET   10/1 states

   MVI B   7/1 states

   MVI C   7/1 states

   DCR C or DCRB   4/ states

   JNZ   10/7/1 states   4

   (b) Discuss various addressing modes of SAP-III computers instructions and give at least two examples of each addressing mode.   4

GSO/D-17

1123

ELECTRONICS

Second Paper

Electronic Communication

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. (a) Why is high frequency carrier needed in a communication system ?   2

   (b) Define the term deviation ration and give its significance in frequency modulation.   2

   (c) Why is scanning necessary in TV transmission ?   2

   (d) Why is 'Y' signal set = 0.3R + 0.59G + 0.11B ? 2

Unit I

2. (a) Define amplitude modulation and derive the expression for an amplitude modulated carrier wave.

Unit IV

8. Draw block diagram of a monochrome TV transmitter and discuss in brief the function of each unit.   8

9. (a) Define the terms hue, saturation, luminance and chrominance for a colour TV system.   4

   (b) Explain how the luminance (Y) and the colour difference signals are developed from the camera outputs.   4

(b) A radio transmitter radiates 10 kW with the carrier unmodulated and 11.25 kW when the carrier is modulated by a sinusoidal voltage. Calculate the modulation index. Another sine wave is a capable of producing 30% modulation. If both the sine waves simultaneously modulate the carrier, determine the total radiated power. 3

3. (a) Draw the circuit diagram of basic grid bias modulator for generating amplitude modulation and discuss its operation. 5

(b) Unmodulated RF carrier power of 10 kW sends a current of 10 amperes rms through an antenna. On amplitude modulation by another sinusoidal voltage, the antenna current increases to 11.6 amperes. Calculate (i) the modulation index and (ii) carrier power after modulation. 3

Unit II

4. (a) Show that in frequency modulation the produced sidebands theoretically extend upto infinity. 4

(b) In an FM system, the frequency deviation is 4 kHz, when the modulating frequency is 200 Hz and the modulating voltage is 4V. Compute the modulating index. Also compute the frequency deviation and the modulation index if the modulating signal amplitude is increased to 12V and its frequency is decreased to 100 Hz. 4

5. (a) Draw the circuit and explain working of linear diode detector used for amplitude demodulation. 4

(b) Derive the expression for maximum value of RC time constant in a linear diode detector so as to avoid negative peak clipping. 4

Unit III

6. (a) Describe interlaced scanning. Show that it reduces flicker and conserves bandwidth. 4

(b) What is interlace error and discuss how does it affect the quality of the picture ? 4

7. (a) Discuss the importance of sync. pulses in a composite video signal. 4

(b) Define vertical and horizontal resolution and discuss how it affects the highest modulating frequency of a TV system. 4

GSO/D-17   **1124**

COMPUTER SCIENCE

Paper I

Fundamentals of Database Systems

Time : Three Hours]   [Maximum Marks : 40

Note : Q. No. 1 is compulsory. Attempt any *Four* questions out of Units I, II, III and IV by selecting at least *one* question from each Unit.

1. (a) What is the relation between Data and Information ?

     (b) What do you mean by Privacy ?

     (c) What is the difference between Casual and Naïve end-user ?

     (d) Give *two* examples of RDBMS software.   2×4=8

Unit I

2. Define and differentiate between record and file. Also explain various limitations of traditional file based system.

3. Explain the concept of Database, Database Management System and Database system. How are they interrelated with each other ? Explain with the help of a block diagram and give an example also.   8

Unit II

4. Discuss the role of various actors in database environment.   8

5. (a) Describe three level architecture of DBMS by using an example. What are its advantages ?   5

   (b) What do you mean by data independence ? Explain various types of data independency.   3

Unit III

6. Design a E-R Model for a college database with the following assumptions :   8

   (a) A college contains many departments.

   (b) Each department can offer any number of courses.

   (c) Many teachers can work in a department.

   (d) A teacher can work only one department.

   (e) Each teacher can take any number of courses.

   (f) A course can be taken by only one teacher.

   (g) A student can enrol for any number of courses.

   (h) Each course can have any number of students.

7. Write short notes on the following :

   (a) Object-based Data models

   (b) Physical Data models.   8

Unit IV

8. Explain centralized and client server architecture to DBMS. Also write advantages and disadvantages of centralized and client server architecture.   8

9. (a) Explain various types of integrity constraints over relations in a Relational Data model.   5

   (b) What is Relational model ? Explain with suitable example. Explain various properties of relational tables.   3

Total Pages : 02

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1126

COMPUTER SCIENCE

Paper II

Web Designing

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. Explain the following with examples :

   (a) Ordered list

   (b) Headers

   (c) Marquees

   (d) WWW.   4×2=8

Unit I

2. What is HTTP ? Where is it used ? Is it a secured protocol ?   8

3. What are basic features of web services ?   8

Unit II

4. Who are Internet Providers ? Name any *two* and give details about the services they provide in real life.   8

5. What are the characteristics of Home Page ?   8

Unit III

6. Make a static web site for Dewali theme.   8

7. Explain different tags for text formatting, text colors, page layout and text styles.   8

Unit IV

8. Explain the tags for buttons and boxes.   8

9. Make tags for a submission Form.   8

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1128

COMPUTER APPLICATION

Paper I

Desktop Publishing

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

(Compulsory Question)

1.   (a)   What are the advantages of Story Editor ?

(b)   Distinguish between paste and paste special.

(c)   What do you mean by tracking and kerning ?

(d)   What do you mean by Autoleading ?

Unit I

2.   Define DTP. What are Hardware and Software requirements for DTP. Explain various common features of DTP packages.

3.   Describe various components of PageMaker Window.

Unit II

4. (a) Explain various options of Document Setup dialog box.

   (b) Explain various steps to import the text in a publication.

5. (a) What do you mean by tabs ? State various types of tabs available in PageMaker ? Explain various steps to set tabs.

   (b) State various types of indents available in PageMaker. Explain various steps to set indents.

Unit III

6. Explain various options of control palette used for character and paragraph formatting.

7. (a) Explain various steps to create columns in the page and to place text in columns.

   (b) Explain various steps to check and correct the spellings of words in a publication.

Unit IV

8. (a) Explain various steps to apply and edit colors to different objects in PageMaker.

   (b) Explain various steps to insert and delete rows or columns in a table.

9. What is a Master Page ? Write the steps :

   (a) to place the guidelines on the master pages

   (b) to place page numbering on the master pages

   (c) to place header on the master page.

GSO/D-17

1130

COMPUTER APPLICATION

Paper II

Programming Using C++

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Explain the following :   8

    (i)   Static data member

    (ii)   Static member function

    (iii) Manipulator

    (iv)   Friend class

    (v)   Inline function

    (vi)   Delete operator

    (vii) This pointer

    (viii) New operator.

Unit I

2. Explain which are the benefits of object oriented programming as compared to procedure oriented programming.   8

3. (a) Explain Data hiding and Encapsulation with suitable examples.   8

    (b) How to access members in a class and structure ? Explain with example.   8

Unit II

4. Explain default, parameterised and copy constructor with examples.   8

5. Explain various formatted I/O functions.   8

Unit III

6. Explain new and delete operator. Also explain passing parameters to function by reference and pointers.   8

7. Explain string handling in C++ with suitable examples.   8

Unit IV

8. What is operator overloading ? Explain. Write a program to add two complex numbers using binary operator overloading.   8

9. Explain function overloading. Also write a program in C++ to find volume of different shapes.   8

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113.4

BIOTECHNOLOGY

Paper XII

Plant Biotechnology

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt Q. No. 1 (compulsory) and *four others* selecting *two* questions from each Unit. All questions carry equal marks.

Compulsory Question

1. (a) What are the cybrids ?   1

   (b) Define vitrification.   1

   (c) Who is the father of Plant Tissue Culture ?   1

   (d) Write the *two* examples of auxin and cytokinin each.   1

   (e) What is the role of vir —E and G genes in *Agrobacterium* mediated plant transformation ?   2

   (f) Describe the disarmed Ti plasmids.   2

Unit I

2. (a) Write a note on haploid plant production.   5

   (b) What are the advantages and limitations of callus culture ? 3

3. (a) Discuss the importance of plant tissue culture.   4

   (b) Write a brief account on synthetic seeds.   4

4. (a) Write a note on protoplasts fusion techniques.   4

   (b) Discuss the applications and limitations of embryo culture. 4

Unit II

5. (a) Write a note on strategies for gene transfer to plant cells.   4

   (b) Describe the binary and co-integrate vectors with examples.   4

6. (a) What are the advantages and disadvantages of direct gene transfer methods ?   3

   (b) Write a note on seed storage protein enhancement in transgenic plants.   5

7. (a) Write a note on polymers and industrial enzymes production in transgenic plants.   6

   (b) Define cryoprotectant with examples.   2

DIETETICS-I

Course 301

Time : Three Hours]　　　　　[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *two* questions from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

प्रत्येक इकाई से कम से कम दो प्रश्न चुनते हुए, कुल **पाँच** प्रश्नों के उत्तर दीजिए। प्रश्न संख्या **1** अनिवार्य है। सभी प्रश्नों के अंक समान हैं।

Compulsory Question
(अनिवार्य प्रश्न)

1. Answer the following in 3-4 sentences :
   (i)   Mechanically soft diet
   (ii) Protein requirements in preoperative stage
   (iii) Fat intake in liver diseases.
   (iv) Energy Metabolism during fever.
   (v)   What do you mean by ulcer ?
   (vi) What is imaginary diarrhoea ?
   (vii) BMI
   (viii) Role of fiber in constipation.

1×8=8

8. Describe the causes, dietary management and nutritional requirements for cirrhosis of liver.　　8

यकृत सिरहोसिस के कारण बताइए। इससे ग्रस्त व्यक्ति के लिए आहारीय व्यवस्था एवं पौष्टिक आवश्यकताओं का वर्णन कीजिए।

9. Discuss various dietary approaches used to loose body weight. Name various foods which should be avoided by an obese person.　　8

शारीरिक वजन कम करने हेतु किए जाने वाले आहारीय उपायों का वर्णन कीजिए। अधिक वजन वाले व्यक्ति को क्या-क्या खाद्य पदार्थ नहीं खाने चाहिए ?

निम्नलिखित प्रत्येक का 3–4 वाक्यों में उत्तर दीजिए :

(i) यान्त्रिक नरम आहार

(ii) ऑपरेशन से पूर्व दिनों में प्रोटीन की आवश्यकताएँ

(iii) यकृत के रोगों में वसा सेवन क्या होना चाहिए ?

(iv) ज्वर में ऊर्जा का चयापचयन ।

(v) अल्सर किसे कहते हैं ?

(vi) कार्यिक अतिसार क्या होता है ?

(vii) बी.एम.आई. (BMI)

(viii) कब्ज में रेशे का योगदान ।

Unit I
इकाई I

2. How can we modify normal family diet for therapeutic use ? 8

सामान्य आहार को रोगी के आहारीय उपचारार्थ बनाने के लिए आप इसमें क्या-क्या बदलाव लायेंगे ?

3. Explain etiology, objectives of treatment and dietary management of atonic constipation. 8

आंत दुर्बलता वाली कब्ज के कारण, उपचार के उद्देश्य एवं आहारीय प्रबन्धन का वर्णन कीजिए ।

4. Discuss the causes, symptoms and foods recommended for peptic ulcer. 8

पेप्टिक अल्सर के सामान्य कारण, लक्षण एवं रोगी को दिए जाने वाले खाद्य पदार्थों का वर्णन कीजिए ।

5. Describe the metabolic changes and dietary management during acute fever. 8

तीव्र ज्वर में चयापचयन में क्या-क्या बदलाव आते हैं ? तीव्र ज्वर के रोगी के लिए आहार व्यवस्था का वर्णन कीजिए ।

Unit II
इकाई II

6. Discuss the etiology, health hazards and dietary management for an underweight person. 8

कम शारीरिक भार के कारण एवं इससे होने वाले स्वास्थ्य सम्बन्धी खतरों का वर्णन कीजिए । ऐसे रोगी हेतु आहारीय उपचार बताइये ।

7. What is Gout ? Suggest suitable dietary modifications for a person suffering from gout. 8

वात रोग क्या है ? वात रोग से ग्रस्त व्यक्ति के लिए आहार में क्या-क्या बदलाव लायेंगे, सुझाइए ।

ADVANCED APPAREL AND TEXTILE DESIGNING

202

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

प्रत्येक इकाई से दो प्रश्न चुनते हुए, कुल पाँच प्रश्नों के उत्तर दीजिए । प्रश्न संख्या 1 अनिवार्य है । सभी प्रश्नों के अंक समान हैं ।

Compulsory Question

(अनिवार्य प्रश्न)

1. Explain any *four* :

   (a) Body proportion

   (b) Sources of fashion

   (c) Fashion cycle

   (d) Dyeing

   (e) Fashion/Fad.

निम्नलिखित में से किन्हीं चार का वर्णन कीजिए :

(अ) सामाजिक अनुपात

(ब) फैशन के दोष

(स) फैशन चक्र

(द) रुचि

(इ) फैशन/फैड ।

Unit I

इकाई I

2. Explain the factors retarding fashion by defining fashion also.

फैशन को परिभाषित करते हुए फैशन को कम करने वाले कारकों के बारे में लिखिए ।

3. Classify figure types and suggest suitable clothing for them.

विभिन्न प्रकारों का वर्गीकरण कीजिए तथा इनके लिए उचित परिधानों का सुझाव दीजिए ।

4. (a) What are the factors which help to judge good fit ?

अच्छी फिटिंग को आंकने के कौन-कौनसे कारक हैं ?

(b) Explain the reasons for poor fitting.

अनुचित फिटिंग के कारणों का वर्णन कीजिए ।

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5. Write the various fitting problems and remedies to solve fitting problems (at least 5 figure defects).

विभिन्न फिगर दोषों के बारे में लिखिए तथा फिगर दोषों के लिए उचित परिधान सुझाइए (कम से कम 5 फिगर दोष) ।

Unit II

इकाई II

6. Define textile designing and explain the importance of textile designing.

टेक्सटाइल डिजाइनिंग को परिभाषित कीजिए तथा टेक्सटाइल डिजाइनिंग की महत्ता का वर्णन कीजिए ।

7. Classify dyes and write in detail about household dyeing.

रंगों का वर्गीकरण कीजिए । घरेलू रंगाई का विस्तार से वर्णन कीजिए ।

8. (a) What are the tools required for 'tie and dye' ?

'बांधना व रंगना' प्रक्रिया के लिए उपयुक्त उपकरण क्या-क्या होते हैं ?

(b) Write the various methods of tie and dye.

'बांधना व रंगना' प्रक्रिया के विभिन्न तरीके लिखिए ।

9. Define printing and write the methods of hand printing.

छपाई को परिभाषित कीजिए तथा हाथ द्वारा छपाई की विभिन्न विधियों के बारे में लिखिए ।

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EARLY CHILDHOOD EDUCATION AND
CHILDREN WITH SPECIAL NEEDS

Course 303

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *two*
questions from each Unit. Q. No. **9** is compulsory.

प्रत्येक इकाई से दो प्रश्न चुनते हुए, कुल पाँच प्रश्नों के उत्तर
दीजिए । प्रश्न संख्या 9 अनिवार्य है ।

Unit I

इकाई I

1. Explain the principles of planning for preschool
programme.   8

पूर्वस्कूल कार्यक्रम के नियोजन के लिए सिद्धांतों का उल्लेख कीजिए ।

2. Give the criteria for the selection of indoor and outdoor
equipments.   8

अन्दर व बाहर के लिए उपकरणों के चुनाव करते समय किन बातों
को ध्यान में रखना चाहिए ?

3. Describe any *two* types of early childhood education centres.

8

कोई दो प्रकार के पूर्व बाल्यावस्था शिक्षा केंद्रों का वर्णन कीजिए ।

4. Compare the theories given by Rousseau and Froebel regarding nursery school education.

8

नर्सरी स्कूल शिक्षा के प्रति रूसो और फ्रोबेल की विचारधारा में तुलना कीजिए ।

Unit II
इकाई II

5. Explain the educational provision for gifted child and mentally retarded child.

8

प्रतिभावान बालक और मानसिक विकलांगता वाले बालक के लिए शैक्षिक प्रावधानों का वर्णन कीजिए ।

6. (a) Define the children with special needs.

विशिष्ट आवश्यकता वाले बालकों को परिभाषित कीजिए ।

(b) Explain the usefulness of welfare programmes meant for these children.

3+5=8

इन बालकों के हेतु कल्याणकारी कार्यक्रमों की उपयोगिता का वर्णन कीजिए ।

7. Define and classify the cerebral palsy.

8

सेरीब्रल पॉलिसी को परिभाषित व वर्गीकृत कीजिए ।

8. Explain the role of community as a whole in bringing the exceptional children in the mainstream.

8

विशिष्ट बालकों को मुख्य धारा में लाने के लिए समाज के योगदान पर प्रकाश डालिए ।

9. Explain in brief :

4×4

(a) Importance of Early Childhood Education
(b) Functioning of Anganwadi
(c) Causes of speech disorders
(d) Welfare programmes for children.

Compulsory Question
(अनिवार्य प्रश्न)

संक्षिप्त वर्णन कीजिए :

(अ) पूर्व बाल्यावस्था शिक्षा का महत्व
(ब) आँगनबाड़ी की कार्यशैली
(स) भाषा विकार के कारण
(द) बच्चों के लिए कल्याणकारी योजनाएँ ।

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1182

HOUSING

Course 304

Time : Three Hours]　　　　　　　　　　[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

प्रत्येक इकाई से दो प्रश्न चुनते हुए, कुल पाँच प्रश्नों के उत्तर दीजिए । प्रश्न संख्या 1 अनिवार्य है । सभी प्रश्नों के अंक समान हैं ।

Compulsory Question

(अनिवार्य प्रश्न)

1. Answer the following :

　(a)　Site

　(b)　House

　(c)　Economy

　(d)　Asthetics.

निम्नलिखित के उत्तर दीजिए :　　　　　　　　2×4=8

　(अ)　स्थान

　(ब)　मकान

(स) मितव्ययता

(द) सौन्दर्यशास्त्र ।

Unit I
इकाई I

2. Write down the advantages and disadvantages of renting a house. 8

   किराये के मकान के लाभ और हानियाँ बताइए ।

3. What points will you keep in mind while purchasing a plot for house. 8

   घर के लिए प्लाट खरीदते हुए आप कौनसी बातों का ध्यान रखेंगे ?

4. Write in detail about bricks and tiles used for construction of house. 8

   घर के निर्माण के लिए प्रयोग होने वाली ईंटों और टाइलों का वर्णन कीजिए ।

5. How do co-operative housing societies help in arranging loan for house ? 3

   सहकारिता गृहीण समितियाँ मकान पर के लिए ऋण की किस व्यवस्था करती है ?

Unit II
इकाई II

6. Explain any *four* symbols with drawings used for reading house plans. 8

   घरेलू नक्शों को पढ़ने के लिए प्रयोग किए जाने वाले कोई चार चिह्न खाका बनाकर वर्णन कीजिए ।

7. What points will you keep in mind while space planning ? 8

   स्थान की व्यवस्था करते समय आप कौनसी बातों का ध्यान रखेंगे ?

8. Do the space planning of bedroom of a middle income family. 8

   मध्यम आय वाले परिवार के सोने वाले कमरे के स्थान की व्यवस्था कीजिए ।

9. How will you do the lighting arrangement inside the house ? 8

   घर के अन्दर प्रकाश की व्यवस्था आप कैसे करेंगे ?

BCA/D-17

1251

WEB DESIGNING FUNDAMENTALS

BCA-351

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Explain the following :

   (a) FTP

   (b) ISP

   (c) Domain Name System

   (d) Internal and External Linking

   (e) Web Browser.

Unit I

2. What is Internet ? Explain the various services of Internet in brief.

3. (a) Explain the web casting techniques in brief.

   (b) What is web server ? What are its advantages ?

Unit II

4. (a) What is Website ? Explain the various components of website.

   (b) Differentiate between Static and Dynamic Website.

5. What is Web Hosting ? Describe various types of web hosting service. Also write the steps to host your website.

Unit III

6. (a) Describe the structure of HTML document.

   (b) Explain the following tag in HTML :

      (i)

      (ii) <HR>

      (iii) <Marquee>

      (iv) <FONT>

7. (a) Explain various text style tags in HTML with examples.

   (b) What is HTML ? Describe the features of HTML document.

Unit IV

8. (a) How are tables created in a web page ?

   (b) Explain the following in HTML :

      (i) Radio Button

      (ii) Check Box

      (iii) Menu.

9. (a) What is Frame in HTML ? Explain <Frame> tag by giving example.

   (b) What is Form ? Describe the syntax and use of <Form> tag.

Total Pages : 02

BCA/D-17

1252

OPERATING SYSTEM-I

BCA-352

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. **1** is compulsory.

Compulsory Question

1. (a) Define an Operating System.

   (b) What do you mean by Buffering ?

   (c) Expand the following abbreviations :
   FCFS, SJF, FIFO, LRU.

   (d) Define the term Scheduling.

   (e) What is a 'page' in paged memory management system ?

   (f) What is 'Safe State' regarding Deadlock Avoidance ?

   (g) What do you mean by a file ?

   (h) What is Thrashing ?   2×8

Unit I

2. Discuss the various functions performed by an Operating System.   16

P.T.O.

3. Explain Multiprogramming Operating System in detail.   16

Unit II

4. (a) Introduce the term process.   4

   (b) Explain the various process states and their transitions.   12

5. (a) Discuss SJF Scheduling.   8

   (b) Discuss Priority Scheduling.   8

Unit III

6. Explain Deadlock Detection and Recovery.   8,8

7. Write explanatory note on Segmentation.   16

Unit IV

8. Write the FIFO and LRU Page Replacement Algorithms.   8,8

9. Discuss the various file types and file attributes.   8,8

BCA/D-17

1253

ARTIFICIAL INTELLIGENCE

BCA-353

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory.

1. (a) What is Turing Test ? 2×8=16

   (b) Name different application area of AI.

   (c) Define Expert System.

   (d) What is Model Based Expert System.

   (e) Define Breadth First Search.

   (f) What is Best First Search.

   (g) ....

   (h) ....

Unit I

2. Discuss the .... present .... in field of Artificial Intelligence. 16

3. What is Artificial Intelligence ? Describe characteristics of AI problem along with the base and structure of AI problem. 16

Unit II

4. Explain the .... age of an Expert System. 16

5. (a) Discuss advantages and limitation of an Expert System. 8

   (b) Explain any successful example of an Expert System. 8

Unit III

6. Explain the relevance of searching in Artificial Intelligence. 16

7. What is Heuristic Search ? Explain Hill Climbing. 16

Unit IV

8. What is Robotics ? Explain the concept of a robot along with its major components. 16

9. Discuss the concept of Natural Language Processing in ... 16

BCA/D-17

1255

PROGRAMMING USING VISUAL BASIC

BCA-355

Time : Three Hours]　　　　　　　　[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer the following questions in short :
   - (a) List the various controls used in VB ?　　2
   - (b) What is a Combo Box ?　　2
   - (c) Define Message box in VB.　　2
   - (d) Explain use defined data type.　　2
   - (e) What is select case statement ?　　2
   - (f) What is the use of Exit statement ?　　2
   - (g) What do you mean by named arguments ?　　2
   - (h) Explain passing mechanism in VB.　　2

Unit I

2. What is IDE ? Discuss the following components of IDE :
   - (a) Toolbar
   - (b) Project Explorer
   - (c) Form Designer
   - (d) Immediate Window.

3. What is User Interface ? And how we can design user interface. Explain with suitable example. 16

Unit II

4. (a) What is a variable and also discuss variable constructing rules in detail. 8

   (b) Explain the following :
       Variant type, Object data, Boolean data. 8

5. Define various types of operators in VB with examples. 16

Unit III

6. (a) Explain control structure of VB. 8

   (b) Differentiate between if-then-else and case structure. 8

7. (a) How will you declare a two-dimensional array in VB ? Explain with suitable example. 8

   (b) Differentiate between do loop and while wend loop. 8

Unit IV

8. (a) What is a function and how does it differ from procedure ? 8

   (b) Discuss the procedure of creating menu in VB. 8

9. Design user interface for the following problem and write the code :

   Take two textboxes, labels and command buttons give proper caption, textboxes should take the values of length and width by clicking on command button. Display the area of rectangle in label where (area = length * width). 16

BCA/D-17

1256

MULTIMEDIA TOOLS

BCA-356

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Define Multimedia.   2×8=16

   (b) What do you mean by VRML ?

   (c) What are different commonly used file formats ?

   (d) How is conventional TV different from HDTV ?

   (e) What is difference between Analog and Digital Audio ?

   (f) Define Pulse Code Modulation.

   (g) What is Transform coding ?

   (h) What are different modes of JPEG standard ?

Unit I

2. What do you mean by Multimedia Authoring ? Explain various types of Authoring tools.   16

3. (a) Explain different kinds of Multimedia Hardware. 8

   (b) Give a brief overview of Multimedia Software tools.   8

Unit II

4. (a) Explain different standards for Chroma Subsampling.   8

   (b) Compare NTSC, PAL and SECAM analog video standards.   8

5. Explain various color models in Images and Video. 16

Unit III

6. (a) Write a short note on MIDI.   8

   (b) Explain various digital audio file formats.   8

7. (a) Explain differential pulse code modulation by using an example.   8

   (b) Explain Delta modulation with example.   8

Unit IV

8. What is Data Compression ? Explain run length and variable length coding in detail.   16

9. Explain MPEG video compression technique. How is it different from H.261 ?   16

OBCA/D-17

1257

INTRODUCTION TO OBJECT
ORIENTED PROGRAMMING

BCA-351

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. 1 is compulsory.

(Compulsory Question)

1. (a)   What is #ifdef ?

    (b)   What are the characteristics of Procedure Oriented Programming ?

    (c)   Differentiate between Linear Search and Binary Search.

    (d)   Differentiate between 'address of' and 'indirection' operator.   4×4=16

Unit I

2. (a)   Differentiate between macro substitution and functions.   8

(b) What are the conditional compilation directives ? Illustrate with example. **8**

3. Write short notes on the following :

(a) Encapsulation

(b) Class and objects

(c) Static Data members

(d) Data Abstraction. **16**

Unit II

4. Explain all the formatted and unformatted I/O operations. **16**

5. (a) What is the Dynamic Constructor ? What are its advantages ? **8**

(b) What is the difference between Default constructor and Parameterized constructor ? **8**

Unit III

6. What is String ? Explain all the string function by giving example. **16**

7. (a) What is a Pointer ? Illustrate with example. **8**

(b) What is an Array ? What are the advantages of using array ? Write a program to sort an array using Bubble Sort ? **16**

Unit IV

8. (a) What is Inline function ? Explain it with example. **8**

(b) What is Operator Overloading ? Write a program to overload unary (-) operator ? **8**

9. Explain all the operator in C++ by giving example. Explain its precedence. **16**

CBCA/D-17 1259

SOFTWARE ENGINEERING

BCA-353

Time : Three Hours]　　　　　　　　[Maximum Marks : 80

Note : Q. No. 1 is compulsory. Attempt *Five* questions in all.
selecting at least *one* question from each Unit in addition
to Question No. 1.

(Compulsory Question)

1. (a) What are the advantages of Prototype Model ? 3

   (b) What are the characteristics of SRS ? 4

   (c) What problems arise if two modules have high
   coupling ? 3

   (d) Differentiate between blackbox and white box
   testing. 3

   (e) What is relationship between fault and failure in
   the software ? 3

Unit I

2. Explain the waterfall model for software development ?
   When this model is preferable ? 16

3. How the scheduling of the project is done ? Also explain
   detailed scheduling. 16

Unit II

4. What is structured analysis ? Briefly explain the tools of
   structured analysis. 16

5. Define module coupling and explain different types of
   coupling. 16

Unit III

6. What is Blackbox testing ? Describe the equivalent class
   partitioning technique. 16

7. (a) Discuss the limitations of Testing. Why do we say
   the complete testing is impossible ? 8

   (b) Explain the concept of structured programming. 8

Unit IV

8. Explain unit testing. What are problems in testing a
   module in isolation ? 16

9. Explain the maintenance process by a diagram. 16

Roll No. ....

OBCA/D-17

COMPUTER NETWORKS

BCA-354

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit in addition to compulsory Q. No. 1.

(Compulsory Question)

1. (a) What is Frame Relay Network Technology ?

    (b) What is the need of protocol ?

    (c) Define bandwidth in the context of computer network.

    (d) What is DSL, Internet ? Differentiate between symmetrical and asymmetrical DSL.

    (e) What is Gateway ?

    (f) What is drawback of Hierarchies routing ?

    (g) What is Router ?

    (h) Differentiate between Symmetric key and Public-key cryptosystem.   16

Unit I

2. Discuss any *four* network topologies in detail, with their performance indicators.   16

3. (a) Explain connection-oriented and connection-less services.   6

   (b) Discuss various network design issues.   10

Unit II

4. Explain unguided transmission media along with transmission characteristic.   16

5. What do you mean by Switching ? Explain different types of switching along with advantages and disadvantages.   15

Unit III

6. Write short notes on the following :

   (a) Go-Back-N Sliding window Protocol

   (b) Fast Ethernet implementations.   8+8

7. (a) What is FDDI ? Explain FDDI nodes.

   (b) What is Bluetooth ? Discuss different types (versions) of bluetooth.

Unit IV

8. What is routing in network ? Discuss about shortest path routing with illustration.   16

9. What is congestion and what are the causes of congestion ? Explain the method of congestion avoidance.   16

BSIT/D-17   12136

COMPUTER SYSTEM ARCHITECTURE-I

BSIT-501

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) What is a Register Transfer Logic (RTL) ? Explain it with an example.

   (b) What is an I/O Interface ?

   (c) How is CISC architecture more effective ?

   (d) Explain the design of accumulator logic ? **2 each**

Unit I

2. (a) Compare register reference and memory reference instructions.

   (b) What is the format of an instruction for a computer ?

4,4

3. (a) How are timing and control signals generated by CPU (Central Processing Unit) ? **4**

(b) Show block diagram of the hardware that implements the following transfer logic : **4**

$T_2 : R_2 \leftarrow R_1, R_1 \leftarrow R_2,$

Unit II

4. Design a typical stage that implements the following logic micro-operations :

$P_2 : A \leftarrow \bar{A} \vee B$

$P_3 : B \leftarrow A \vee \bar{B}$

$P_4 : A \leftarrow A \vee B$

$P_5 : \bar{B} \leftarrow \bar{A} \vee \bar{B}$

5. If contents of register A is 1110 and that of B is 0110, show that either one of the micro operation sequences listed below produce the difference 1000.

(a) $T_1 : A \leftarrow \bar{A}$

$T_2 : A \leftarrow A + 1$

$T_3 : B \leftarrow A + B$

(b) $T_1 : B \leftarrow \bar{B}$

$T_2 : A \leftarrow A + B$

$T_3 : B \leftarrow B + 1$

Unit III

6. (a) Draw the diagram of micro-programmed sequencer for a control memory and explain it. **5**

(b) Differentiate a direct and an indirect addressing modes. **3**

7. (a) Contrast the horizontal microprogramming (long format) with vertical microprogramming (short format). **4**

(b) Write microprogram to swap the contents of register R1 and R2 ? **4**

Unit IV

8. Write notes on the following units of central processing units : **3,3,2**

(a) Adder Unit (Adds signed fuel integer numbers)

(b) Multiplier Unit (Integer Multiply)

(c) Logic Unit (All Boolean Logic Operations).

9. (a) List characteristics of RISC architecture and explain use of overlapped register windows.

(b) Elaborate types of interrupts with example of each. **4,4**

BSIT/D-17

12137

PROGRAMMING IN C++

BSIT-502

Time : Three Hours]   [Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsoy Question)

1. (a) Explain the various bitwise operators in C++.   2

    (b) Explain the use of null character in strings.   2

    (c) Describe default arguments in C++ with an example.   2

    (d) What is a constructor ?   2

Unit I

2. Explain the following :

    (a) Enumeration   2

    (b) Reference   2

    (c) Floating point data types   2

    (d) For loop.   2

3. Describe the various concepts of OOPS. 8

Unit II

4. (a) Explain the purpose and syntax of structure in C++ by giving suitable examples. 4

   (b) Write a program in C++ to sort the list elements. 4

5. (a) What are pointer variables ? Explain the use of address operator (&) and dereference operator (*) with pointer variables. 4

   (b) Explain the purpose and syntax of union data types in C++ with example. 4

Unit III

6. (a) Explain the concept of recursion through one example. 4

   (b) Describe function overloading in C++ with an example. 4

7. (a) Explain different types of argument passing in C++ with example. 4

   (b) Explain the concept of pointer to function in C++ with suitable example. 4

Unit IV

8. Explain the following :

   (a) Copy constructor 2

   (b) This pointer 2

   (c) Static data members 2

   (d) Destructor. 2

9. (a) Explain the concept of class and objects in C++ with an example. 4

   (b) Explain the concept of passing objects as arguments in C++ with an example. 4

BSIT/D-17

12138

COMPUTER

BSIT-503

Web-Site Design Implementing Basic Design
Tools-I

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting at least *one*
question from each Unit. Q. No. 1 is compulsory.

1. Write short notes on the following : 2×4=8

   (a)   <I> tag

   (b)   <UL> tag

   (c)   <IMG> tag

   (d)   <Marquee> tag.

Unit I

2. Write steps to create and view HTML pages. 8

3. (a) Describe color setting in HTML using hexadecimal
numbers.

   (b)   Distinguish between container tages and empty tages
giving at least *four* examples of each type. 4

Unit II

4. (a) Briefly describe block level and text level elements in HTML.   4

    (b) Briefly describe headsection elements.   4

5. Write short notes on following :   3+3+2=8

    (a) <FONT> tag

    (b) <BASEFONT> tag

    (c) LONG attribute.

Unit III

5. What do you mean by external linking ? Briefly describe the following external link attributes giving suitable example(s) :   8

7. Briefly discuss the following :   4×2=8

    (a) <A> tag

    (b) Linking with specific E-mail address.

Unit IV

8. Explain the following attributes of <Table> tag :   2×4=8

    (a) CELLSPACING

    (b) ALIGN

    (c) BACKGROUND

    (d) HEIGHT

giving suitable examples.

9. Write HTML code to generate the following table :   8

Bill Table

Item	Price	Qty.	Total
Type A	500	4	200
	1000	3	3000
Type B	700	5	3500
	900	6	5400

BSFFD-17   **12139**

INTERNET CONCEPTS & APPLICATIONS-I

BSFFD-503

[Time : Three Hours]   [Maximum Marks : 40

Note : *Attempt Five questions in all, selecting at least one question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.*

1. (a) Explain IMAP Email protocol.   2
   (b) Explain usenet.   2
   (c) Write short notes on Web Resources.   2
   (d) Explain characteristics of Satellite internet connection.   2

Unit I

2. Write short notes on the following :
   (a) Email Attachment   4
   (b) Email Spam.   4

3. (a) What is a Mailing List ? Explain its types and working.   4
   (b) Write about the short ..... of the ...... mailing   4

Unit II

4. (a) Compare and contrast FTP and Telnet.   4
   (b) Explain any four Telnet Commands.   4

5. (a) Write down the steps to configure a FTP Server.   4
   (b) Explain the FTP commands to download and upload a file from server.   4

Unit III

6. What do you mean by Search Engine ? Explain its working.   8

7. What do you mean by W3 consortium and discuss its working ?   8

Unit IV

8. Discuss satellite internet connection and its characteristics.   8

9. Write short notes on the following :
   (a) Cable TV Internet connection   4
   (b) Symmetric DSL.   4

BSIT/D-17

12140

MICROPROCESSOR ARCHITECTURE

& PROGRAMMING

BSIT-505

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory.

Compulsory Question

1. (a) Explain Stack structure of 8086. 2×4

   (b) Differentiate between dynamic and static RAM interfacing.

   (c) Discuss Mesh topology and its advantage.

   (d) Write down the design issues of RISC processor.

Unit I

2. (a) Explain interrupt. Also discuss interrupt cycle of 8086. 4

   (b) Discuss difference between Macro and Subroutine. 4

3. (a) Differentiate between maskable and non-maskable interrupts. 4

(b) Write an ALP to generate 100 msec. delay using a microprocessor system that runs at 10 MHz. 4

Unit II

4. (a) In detail, discuss the procedure of interfacing dynamic RMM with CPU. 5

(b) Write ALP to display numbers 1 to 8 on segment displays interfaced with 8086 outputs ports. The 7-segment codes are stored in a look-up table serially at address 2050:0000H onwards. 3

5. (a) Discuss memory-mapped and I/O mapped interfacing methods. 4

(b) Interface two 8K RAM chips and two 8K EPROM chips with 8086. 4

Unit III

6. (a) Discuss the architecture of 8087. 6

(b) Explain purpose of SOC and EOC control signal of ADC. 2

7. (a) Interface 8 bit ADC 0808 with 8086 using 8255 with suitable diagram. 5

(b) Discuss key features of Multiport Memory Configurations. 3

Unit IV

8. (a) Explain Real address mode and protected virutal mode of 80286. 4

(b) Discuss design issues of RISC Processors. 4

9. (a) Discuss salient features of 80286. 4

(b) Explain the advantages and disadvantages of RISC processor. 4

BSQ/D-17 **16571**

ENGLISH

(Modern British Literature–I)

Paper–XI

Time : Three Hours]   [Maximum Marks : 80

Note : All questions are compulsory.

1. Explain with reference to the context :

    (a) Where the wandering water gushes

    From the hills above Glen-Car,

    In pools among the rushes

    That scarce could bathe a star,

    We seek for slumbering trout

    And whispering in their ears

    Give them unquiet dreams;

    Leaning softly out

    From ferns that drop their tears

    Over the young streams.

    OR

    The work is done, grown old he thought,

    'According to my boyish plan;

    Let the fools rage, I swerved in naught,

    Something to perfection brought;

(b) "The solid earth sways like the treacherous sea beneath the feet of men and spirits alike when the innocent are slain in the name of law, and their wrongs are undone by slandering the pure of heart."

OR

"Where What will the world be when The Church's accumulated wisdom and knowledge and experience, its councils of learned, venerable pious men, are thrust into the kennel by every ignorant laborer or dairy-maid whom the devil can puff up with the monstrous self-conceit of being directly inspired from heaven ? It will be a world of blood, of fury, of devastation, of each man striving for his own hand : in the end a world wrecked back into barbarism."

(2×6=12)

2. Attempt any *six* questions of the following :

(a) "For the world's more full of weeping than you can understand." Discuss.

(b) Comment on the objects of nature in "The Lake Isle of Innisfree".

(c) Elaborate the importance of "Horn of Plenty".

(d) Importance of Epilogue in Saint Joan.

(e) Why Joan wears a soldier's uniform ?

(f) "I will not look back to see whether anyone is following me." Discuss Joan's identity based on this statement.

(g) Comment on the character of The Dauphin.

(h) [Description of 'Love' in the poem "When You Are Old".]

(6×4=24)

3. Write short notes on any *two* of the following :

(a) Quixotic elements in Yeats' poetry.

(b) Yeat's style is unique among both nineteenth and twentieth-century poets. Discuss.

(c) How do the terms "Protestantism" and "Nationalism" threaten the Church of the era of Saint Joan ?

(2×7=14)

4. Comment on the central idea of the poem "A Prayer for My Daughter."

OR

Write the critical appreciation of the poem "The Wise Old Wicked Man".

15

5. The first three scenes were "Just theatre.... With Scene Four the play begins." Discuss with reference to the play *Saint Joan.*

OR

What possible meanings could Shaw trace by entitling his play *Saint Joan* ? Elaborate.

15

———

BSQ/D-17

16572

INDIAN WRITING IN ENGLISH

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt all questions.

1. Explain with reference to the context :

(a) I ask you to pause

and to hear it again,

but you sweep ahead to hear

another music.

It's true we cannot live on echoes

OR

The London seasons passed me by.

I lay in bed two years alone,

And then a Women came to tell

My willing ears I was the son

Of man. I knew that I had failed.

(b) I give up, Devdatta. I surrender to your judgement. I hadn't though anyone could be more beautiful than the wench Ragini who acts Rambhain our village troupe. But this one ! You're right – she is Yakshini, Shakuntala, Urvashi, Indumati all rolled into one.

OR

To be honest, Mr Bhagwata Sir, I have doubts about this theory. I believe – in fact, I have doubts about this theory. I believe. I believe – in fact I may go so far as to say I firmly believe – that its this sort of sentimentality which has been the bane of our literature and national life. It kept us from accepting Reality and encouraged escapism. (2×6=12)

2. Attempt any *six* of the given questions :

(a) What does Ezekiel mean when he says "It started as a pilgrimage ?"

(b) What is the similarity between a poet and lover ?

(c) Comment on the theme of the poem "Philosophy."

(d) Why does poet call himself a "poet-rascal-clown" in the poem "Background, Casually"?

(e) Comment on the title of Hayavadana.

(f) Comment on the relationship of Kapila and Devdatta.

(g) Why does Kapila cut his head in front of Goddess Kaali ?

(h) Comment on the comic elements of the play. (4×6=24)

3. Attempt any *two* short notes selecting at least one from the each text :

(a) Diction of Ezekiel's poetry.

(b) Structure of Hayavadana.

(c) Supernatural elements in Hayavadana. (2×7=14)

4. Attempt a critical appreciation of the "Poem of Separation".

OR

Comment on Indianness of Ezekiel's poetry. 15

5. Comment on the use of masks in the play.

OR

"While the Brahmin poet is wise, he is not physically appealing". Comment on the theme of the play in the light of above statement. 15

_____

BSQ/D-17

16599

SANSKRIT

Saṁhitā Vyākarṇaṁ Cha

Paper-XI

Time : Three Hours]

[Maximum Marks : 80

नोट : सभी प्रश्नों के क्रमानुसार उत्तर दें।

1. निम्न लघु उत्तरात्मक प्रश्नों के उत्तर दें :

(क) इन्द्रसूक्त के ऋषि का नाम लिखें।

(ख) हिरण्यसूक्त के ऋषि का नाम लिखें।

(ग) शिवसंकल्पसूक्त के देवता का नाम लिखें।

(घ) भूमिसूक्त के देवता का नाम लिखें।

(ङ) √दृश्-लट् लकार, प्रथम पुरुष, एकवचन का रूप लिखें।

(च) अग्निसूक्त के मन्त्रों के छन्द का नाम लिखें।

(छ) अनुदात्त स्वर की परिभाषा लिखें।

(ज) स्वरित स्वर की परिभाषा लिखें।

(2×8=16)

2. (क) ऋग्वेद संहिता के निम्न मन्त्रों में से **दो** मन्त्रों की व्याख्या करें :

(अ) अग्निमीले पुरोहितं, यज्ञस्य देवमृत्विजम्।

होतारं रत्नधातमम्॥

(ब) यो रुद्रस्य चोदिता यः कृशानुः

यो ब्रह्मणो नाथमानस्य करिते:।

यजमानायोदिता सुशिप:
सुखसौमनस्य म जनास इन्द्र:॥

(स) य आत्मदा बलदा यस्य विश्व
उपासते प्रशिषं यस्य देवा:।
यस्त्रह्योयापुर्त यस्य मृत्यु:
कस्मै देवाय हविषा विधेम॥ (5×2=10)

(ख) हिरण्यसूक्त **अथवा** संज्ञानसूक्त का सार लिखें। 6

3.
(क) यजुर्वेद संहिता के निम्न मन्त्रों में से केवल दो की व्याख्या करें :

(अ) यज्ञमानो दुरमुदैति वैद तदुसुधस्य तथैवति।
दूरंगमं ज्योतिषां ज्योतिरेकं तन्मे मन: शिवसंकल्पमस्तु॥

(ब) येन कर्मायवसो मनीषिणो यत्रे कृण्वन्ति विदर्पषु धीरा:।
यदपूर्वं यक्षमन्त: प्रजानां तन्मे मन: शिवसंकल्पमस्तु॥

(स) सुधारिशस्वानित यस्मनुघानेनोयतेऽधीशुभिर्यज्जिन इव
हृदालिष्ठ यदजिर जविष्ठं तन्मे मन: शिवसंकल्पमस्तु॥

(ख) शिवसंकल्पसूक्त का सार लिखें। (5×2=10)
6

4.
(क) अथर्ववेद संहिता के निम्न मन्त्रों में से दो की व्याख्या करें :

(अ) सत्यं बृहदृतमुग्रं दीक्षा तपो ब्रह्म यज्ञ: पृथिवीं धारयन्ति।
सा नो भूतस्य भव्यस्य पत्न्युरं लोकं पृथिवी न कृणोतु॥

(ब) अंसंबाधं मध्यतो मानवानां यस्या उद्वत: प्रवत: समंबह्वु।
नानावीर्या ओषधीर्या विभर्ति पृथिवी न: प्रथतारुभ्यतां न:॥

(स) यस्त्रमाप: परिचरा: समानीरहोरात्रे अप्रमादं क्षरन्ति।
सा नो भूमिर्भूरिधारा: पयो दुहामथो उक्षतु वर्चसा॥ (5×2=10)

(ख) भूमिसूक्त का सार लिखें। 6

5.
(क) वैदिकभाषा की विशेषताओं का सोदाहरण विवेचन करें। 8
(ख) तुमथ्एक प्रत्ययों का सोदाहरण विवेचन करें। 8

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BSQ/D-17

SANSKRIT

तर्कसंग्रह

Paper–XII

Time : Three Hours]

[Maximum Marks : 80

नोट : सभी प्रश्न अनिवार्य हैं।

1. निम्नलिखित प्रश्नों के उत्तर दीजिए :

(क) गुण के कितने भेद हैं?

(ख) सामान्य कितने प्रकार का है?

(ग) तत्र प्रत्यक्षज्ञानकरणं ....। वाक्य पूरा कीजिए।

(घ) कारण के कितने भेद हैं?

(ङ) अनुमान कितने प्रकार का है?

(च) दो दो धूमवान् ....। वाक्य पूरा कीजिए।

(छ) संज्ञासंज्ञिसम्बन्धज्ञान को क्या कहते हैं?

(ज) आप्तवाक्यं ....। वाक्य पूरा कीजिए।   (8×2=16)

2. (क) कारण की परिभाषा देते हुए विस्तार से वर्णन कीजिए।

अथवा

भेदों सहित प्रत्यक्ष प्रमाण की व्याख्या कीजिए।   10

(ख) निम्नलिखित में से एक की व्याख्या कीजिए :

(अ) गन्धवती पृथिवी।

(ब) अभावश्चतुर्विधः।   6

3. (क) हेलाभासों का वर्णन कीजिए।

अथवा

पञ्चावयव का विस्तार से वर्णन कीजिए। 10

(ख) 'साहचर्यनियमो व्याप्ति;' अथवा 'तत्र स्वार्थ स्वानुमितिहेतु:' पर संक्षिप्त टिप्पणी लिखिए। 6

4. निम्नलिखित में से दो की व्याख्या कीजिए :

(क) तत्करणं साहर्यज्ञानम्।

(ख) उपमितिकरणमुपमानम्।

(ग) अतिदेशवाक्यार्थ स्मरणमवान्तरव्यापार:।

(घ) संज्ञासंज्ञिसम्बन्धज्ञानमुपमिति:। (8×2=16)

5. निम्नलिखित में से दो की व्याख्या कीजिए :

(क) आद्यवाक्यं शक्ते:।

(ख) पदानामविलम्बेनोच्चारणं सन्निधि:।

(ग) चलनात्मकं कर्म।

(घ) संस्कारास्त्रिविध:। (8×2=16)

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Roll No. ....

BSQ/D-17

16602

POLITICAL SCIENCE

[Comparative Politics (Theory)]

Paper-I

Time : Three Hours] [Maximum Marks : 80

Note : Attempt any *five* questions. All questions carry equal marks.

नोट : किन्हीं **पाँच** प्रश्नों के उत्तर दीजिए। सभी प्रश्नों के अंक समान हैं।

1. Describe the meaning and scope of Comparative Politics. 16

   तुलनात्मक राजनीति के अर्थ तथा विषय-क्षेत्र का वर्णन कीजिए।

2. Define Comparative Method and discuss the features and problems of the Comparative Method. 16

   तुलनात्मक पद्धति को परिभाषित कीजिए और तुलनात्मक पद्धति की विशेषताओं और समस्याओं का वर्णन कीजिए।

3. Discuss Lucian Pye's views on the concept of Political Development. 16

   राजनीतिक विकास की धारणा के संदर्भ में लूसियन पाई के विचारों की व्याख्या करें।

(viii) Who associated the Input-Output Approach ?
   (a) Lucian Pye
   (b) David Easton
   (c) Laski
   (d) Aristotle.

आगत-निर्गत दृष्टिकोण के समर्थक हैं
   (अ) लूसियन पाई
   (ब) डेविड ईस्टन
   (स) लास्की
   (द) अरस्तू।

(8×2=16)

4. Explain the structural-functional approach in comparative politics.

तुलनात्मक राजनीति में संरचनात्मक-प्रकार्यात्मक दृष्टिकोण की व्याख्या कीजिए।

16

5. Define in detail the merits and demerits of Rigid and Flexible constitution.

कठोर एवं लचीले संविधान के गुणों तथा अवगुणों की व्याख्या करें।

16

6. What is Constitutionalism ? Discuss its features.

संविधानवाद क्या है ? इसकी विशेषताएं बताइए।

16

7. Write a note on independence of Judiciary.

न्यायालय की स्वतन्त्रता पर एक लेख लिखें।

16

8. What do you mean by Pressure Groups ? Describe their methods of working through which they obtain their objectives.

दबाव समूहों से आपका क्या अभिप्राय है ? उनके द्वारा अपने उद्देश्यों की प्राप्ति हेतु साधनों की कार्यविधि का वर्णन कीजिए।

16

9. Objective Type (Multiple Choice) Questions :

वस्तुनिष्ठ प्रश्न :

(i) Who firstly used the Comparative Method ?

   (a) Aristotle

   (b) Plato

   (c) Bryce

   (d) Nehru.

किसने पहली बार तुलनात्मक पद्धति का प्रयोग किया ?

   (अ) अरस्तू

   (ब) प्लेटो

   (स) ब्राइस

   (द) नेहरू।

(ii) Who is the Author of book "Theory and Practice of Modern Government" ?

   (a) Carl J. Friedrich

   (b) Herman J. Finer

   (c) Aristotle

   (d) Plato.

"Theory and Practice of Modern Government" के लेखक कौन हैं ?

   (अ) कार्ल जे. फ्रीड्रिक

   (ब) हर्मन जे. फाइनर

   (स) अरस्तू

   (द) प्लेटो।

(iii) Who is the father of behaviouralism ?

(a) David Easton

(b) Dahl

(c) Marrium

(d) Plato.

व्यवहारवाद के पिता कौन है ?

(अ) डेविड ईस्टन

(ब) डहल

(स) मेरियम

(द) प्लेटो।

(iv) Who is associated with the Theory of Separation of Powers ?

(a) Gattle

(b) Laski

(c) Montesque

(d) Aristotle.

शक्तियों के पृथक्करण से कौन सम्बन्धित है ?

(अ) गैटल

(ब) लास्की

(स) मान्टेस्क्यू

(द) अरस्तू।

(v) Which is not associated to modernisation ?

(a) Illiteracy

(b) Higher Education

(c) Literacy

(d) Independent Press.

आधुनिकीकरण से कौन सम्बन्धित नहीं है ?

(अ) अज्ञानता

(ब) उच्च शिक्षा

(स) साक्षरता

(द) स्वतन्त्र प्रेस।

(vi) Who is the Author of book "Prince" ?

(a) Machiavelli

(b) Plato

(c) Laski

(d) Montesque.

"Prince" नामक पुस्तक का लेखक कौन है ?

(अ) मैक्यावली

(ब) प्लेटो

(स) लास्की

(द) मान्टेस्क्यू।

(vii) The nature of Modern State is

(a) Welfare state

(b) Dictatorship

(c) Military

(d) Police State.

आधुनिक राज्य का स्वरूप है

(अ) कल्याणकारी राज्य

(ब) तानाशाही

(स) सैनिक तन्त्र

(द) पुलिस राज्य।

Total Pages : 7

BSQ/D-17

16603

POLITICAL SCIENCE

(International Relations)

(Theory)

Paper : P-II

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *five* questions in all. Select *one* question each from Unit-I to Unit-IV, while Question No. 9 (Unit-V) is compulsory. Each question carries 16 marks.

नोट : कुल **पाँच** प्रश्नों के उत्तर दीजिए। इकाई-I से इकाई-IV तक प्रत्येक इकाई से **एक** प्रश्न का चयन कीजिए, जबकि प्रश्न संख्या 9 (इकाई-V) अनिवार्य है। प्रत्येक प्रश्न 16 अंकों का है।

UNIT-I (इकाई-I)

1. Define International Relations. Discuss its scope and purpose.

   अन्तर्राष्ट्रीय सम्बन्धों की परिभाषा दीजिए। इसके कार्यक्षेत्र और उद्देश्यों का वर्णन कीजिए।

2. Can International Relations be considered an autonomous discipline ? Discuss.

   क्या अन्तर्राष्ट्रीय सम्बन्धों को एक स्वतन्त्र विषय माना जा सकता है? विवेचना करें।

UNIT-II (इकाई-II)

3. Critically examine the Idealistic approach to the study of International Politics.

अन्तर्राष्ट्रीय राजनीति का अध्ययन करने के लिए आदर्शवादी दृष्टिकोण का समीक्षात्मक अध्ययन कीजिए।

4. Write down the characteristics of Marxist-Leninist approach to International Relations.

अन्तर्राष्ट्रीय सम्बन्धों के मार्क्सवादी-लेनिनवादी सिद्धान्त की विशेषताएं लिखें।

UNIT-III (इकाई-III)

5. What do you mean by National Power? Write its main elements.

राष्ट्रीय शक्ति से आपका क्या अभिप्राय है? इसके मुख्य तत्व कौन-से हैं?

6. What is International Law? Discuss its role as a means of limitation on national power.

अन्तर्राष्ट्रीय कानून क्या है? राष्ट्रीय शक्ति को सीमित करने के साधन के रूप में इसकी भूमिका का वर्णन करें।

UNIT-IV (इकाई-IV)

7. Define Collective security. Explain its main characteristics.

सामूहिक सुरक्षा की परिभाषा दें। इसकी मुख्य विशेषताओं की व्याख्या करें।

8. What do you understand by Environment? Discuss the general causes of the Environmental pollution.

पर्यावरण से आप क्या समझते हैं? पर्यावरण प्रदूषण के मुख्य कारण बताएं।

UNIT-V (इकाई-V)
Compulsory Question (अनिवार्य प्रश्न)

9. Objective type question.

वस्तुनिष्ठ प्रश्न।

(a) Who wrote "Politics Among Nations"?
  (i) Morgenthau
  (ii) Quincy Wright
  (iii) Woodrow Wilson
  (iv) Kamplan.

"राष्ट्रों के मध्य राजनीति" किसकी रचना है?
  (i) मॉर्गेन्थाऊ
  (ii) क्विन्सी राइट
  (iii) वुडरो विल्सन
  (iv) काम्पलान।

(b) In International Relations which ideology is studied?
  (i) Marxism
  (ii) Capitalism
  (iii) Fascism
  (iv) All the above.

अन्तर्राष्ट्रीय सम्बन्धों में किस विचारधारा का अध्ययन किया जाता है?

(i) मार्क्सवाद

(ii) पूँजीवाद

(iii) फासीवाद

(iv) उपरोक्त सभी।

(c) Morgenthau's Political realistic approach emphasises on

(i) Fulfilment of national interest

(ii) Increasing the influence

(iii) Protect international interest

(iv) All the above.

मॉर्गेन्थाऊ के राजनीतिक यथार्थवाद दृष्टिकोण की मूलभूत मान्यता है

(i) राष्ट्रीय हितों की प्राप्ति

(ii) प्रभाव का विस्तार

(iii) अन्तर्राष्ट्रीय हितों की रक्षा

(iv) उपरोक्त सभी।

(d) Which one is not the source of power ?

(i) Knowledge

(ii) Organisation

(iii) Poverty

(iv) Size.

निम्नलिखित में से कौन-सा शक्ति का स्रोत नहीं है?

(i) ज्ञान

(ii) संगठन

(iii) गरीबी

(iv) आकार।

(e) Present day the reason for rise of world public opinion is

(i) Psychological unity

(ii) Technology

(iii) Globalisation

(iv) All the above.

वर्तमान युग में विश्व लोकमत के उदय का क्या कारण है?

(i) मनोवैज्ञानिक एकता

(ii) टेक्नोलॉजी

(iii) वैश्वीकरण

(iv) उपरोक्त सभी।

(f) Who said "Balance of Power is the basic principle of International relations" ?

(i) Churchill

(ii) Palmer and Parkinson

(iii) Salichir

(iv) Polard.

वह कथन किसका है– "शक्ति सन्तुलन अन्तर्राष्ट्रीय सम्बन्धों का आधारभूत सिद्धान्त है।"

(i) चर्चिल

(ii) पामर और परकिन्स

(iii) श्लीचर

(iv) फोलार्ड।

(g) Which chapter of UN charter is related with Collective security ?

(i) Chapter 5

(ii) Chapter 9

(iii) Chapter 7

(iv) Chapter 3.

संयुक्त राष्ट्र चार्टर का कौन-सा अध्याय सामूहिक सुरक्षा व्यवस्था से सम्बन्धित है?

(i) अध्याय 5

(ii) अध्याय 9

(iii) अध्याय 7

(iv) अध्याय 3.

(h) Policy adopted by India under Globalisation was known as

(i) Socialism

(ii) Liberalism

(iii) New Socialism

(iv) New Economic Policy.

वैश्वीकरण के अन्तर्गत भारत सरकार द्वारा अपनाई गई नीति को नाम दिया गया

(i) समाजवाद

(ii) उदारवाद

(iii) नया समाजवाद

(iv) नई आर्थिक नीति।