

CBCS SCHEME

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First Semester B.Arch. Degree Examination, June/July 2023 History of Architecture - I

Max. Marks: 100

Time: 3 hrs.

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. The answers should be accompanied with a suitable labeled sketches, if application.

Module-1

- 1 a. Establish the link between history and architecture. (04 Marks)
b. Discuss three different types of pre-historic shelters with neat labeled sketches. (16 Marks)

OR

- 2 a. Discuss stone Henge at Salisbury plan with neat supporting sketches. (10 Marks)
b. Explain the settlement pattern at Catal Huyuk with least supporting sketches. (10 Marks)

Module-2

- 3 a. Explain the town planning aspects of Indus Valley Civilization cities and architectural features of typical dwelling. (10 Marks)
b. With suitable labeled sketches, explain the evolution of pyramid in detail. (10 Marks)

OR

- 4 Write short notes on : (20 Marks)
a. Granary at IVC
b. White temple at Warka
c. Mastaba
d. Hypostyle hall in Egyptian architecture.

Module-3

- 5 What are the factors which influenced to shape up Chinese civilization? Quote with any two examples. (20 Marks)

OR

- 6 Illustrate Japanese and Mayan Civilization in detail with example for each. (20 Marks)

Module-4

- 7 a. Write short notes on (10 Marks)
i) Lion Gate
ii) Tomb of Cyrus.
b. Explain the architectural characters of Palace of Persepolis. (10 Marks)

OR

- 8 a. Explain the salient features of a Vedic village with respect to the layout and roof forms of the houses. (16 Marks)
- b. Write short notes on :
- i) Etruscan Temple
 - ii) Town Planning of Vedic City/ Civilization. (04 Marks)

Module-5

- 9 a. Using historic precedents, illustrate and explain how the environment plays a significant role in the design of desert condition. (10 Marks)
- b. Explain with the example of a tribe of your choice, how indigenous population lives in harmony with the nature. (10 Marks)

OR

- 10 a. Explain the salient features of any one mountainous cultures. (10 Marks)
- b. Explain with one example how tribes in a tropical forest negotiate with their natural environment. (10 Marks)

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18ENG15

First Semester B.Arch. Degree Examination, June/July 2023

Building Structures - I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 Explain the properties of the following :

- Concrete
- Wood
- Steel
- Aluminium
- Glass

(20 Marks)

OR

2 a. Define the following :

- Dead load
- Live load
- Impact load
- Earthquake load
- Static load

(05 Marks)

b. Explain load path in a structure with a neat figure.

(10 Marks)

c. Write a short note on concrete.

(05 Marks)

Module-2

3 a. What is a force system? Explain the classification of force system (Any 5).

(10 Marks)

b. What is a couple? List the characteristics of a couple.

(05 Marks)

c. Find the resultant of the coplanar concurrent force system shown in the Fig.Q3(c).

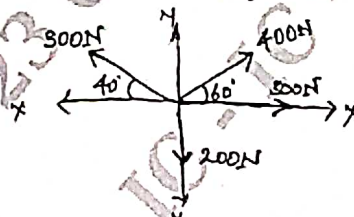


Fig.Q3(c)

(05 Marks)

OR

4 a. Define and explain transmissibility of force with neat sketches.

(06 Marks)

b. Define the following :

- Resultant
- Moment
- Reaction
- Equilibrant

(04 Marks)

c. Four coplanar forces acting at a point are shown in Fig.Q4(c). One of the force is unknown and its magnitude is shown by P. The resultant has a magnitude of 500 N and is acting along the x-axis. Determine the unknown force P and its inclination with the x-axis.

(10 Marks)

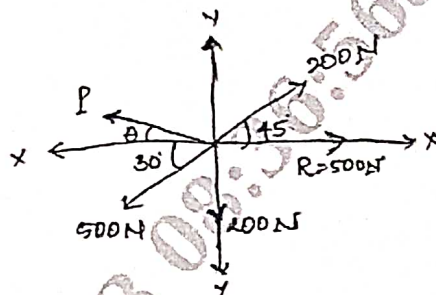


Fig.Q4(c)

Module-3

- 5 a. What are different types of supports? Explain with figure. (08 Marks)
 b. Determine the magnitude, direction of the resultant force for the force system shown in Fig.Q5(b). Also locate the resultant force with respect to point D.

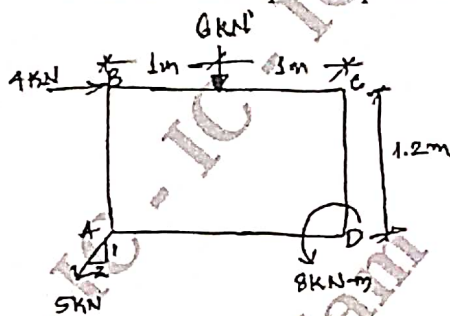


Fig.Q5(b)

(12 Marks)

OR

- 6 a. Explain different types of beams with figure. (10 Marks)
 b. Determine the reactions at A and E for the beam shown in Fig.Q6(b).

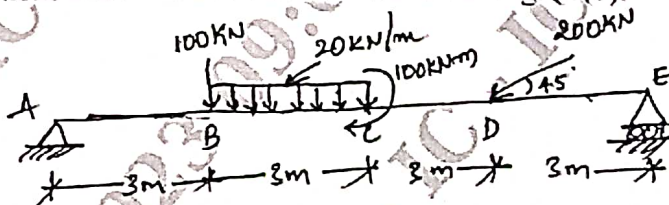


Fig.Q6(b)

(10 Marks)

Module-4

- 7 a. Find the centroid of Fig.Q7(a).

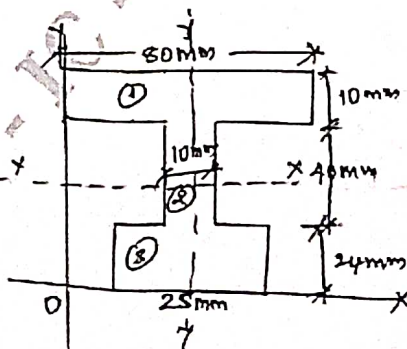


Fig.Q7(a)

(08 Marks)

- b. Determine the moment of inertia about the horizontal axis of the plane lamina shown in Fig.Q7(b). Also find radius of gyration (k) about the horizontal axis.

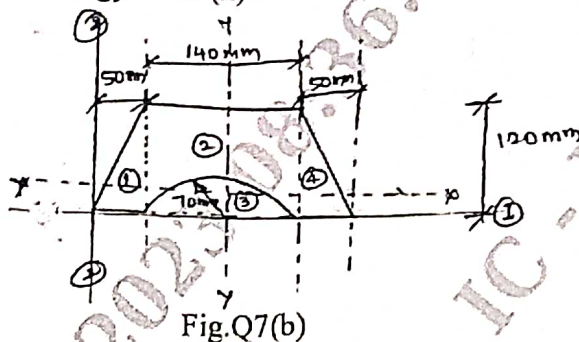


Fig.Q7(b)

(12 Marks)

OR

- 8 a. Define the following :
 i) Centroid
 ii) Centre of Gravity
 iii) Parallel axis theorem with equation (05 Marks)
- b. Determine the moment of inertia of the section shown in Fig.Q8(b) about its centroidal axis. Also calculate the least radius of gyration for the section as well.

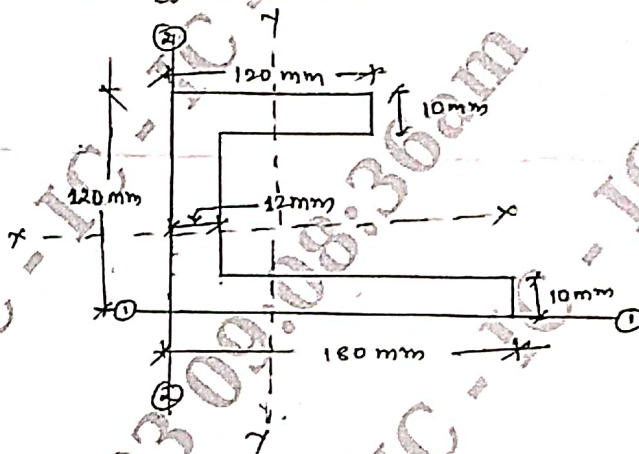


Fig.Q8(b)

(15 Marks)

Module-5

- 9 a. What are the assumptions made in the analysis of truss? (03 Marks)
 b. What are the different types of truss? Explain with figures. (09 Marks)
 c. A truss is shown in Fig.Q9(c), find the support reactions and calculate the total weight if each member has 2 angles 50x50x6 @ 4.5 kg/mt each angle.

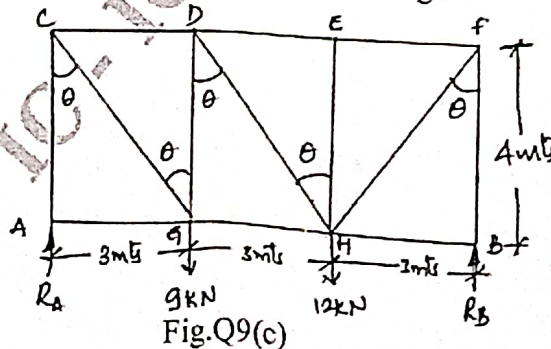


Fig.Q9(c)

(08 Marks)

OR

- 10 Analyse the truss shown in Fig.Q10 by the method of joints. Tabulate the result and indicate the nature of force in the truss.

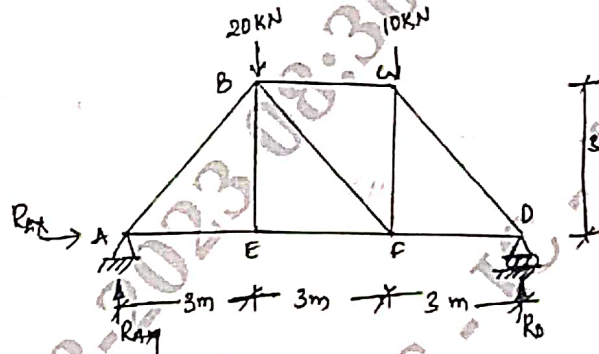


Fig.Q10

(20 Marks)

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21ARC24

Second Semester B.Arch. Degree Examination, June/July 2023

History of Architecture – II

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. Draw and elaborate on significant parts of any Buddhist "Stupa". (10 Marks)
b. Describe the salient features of a typical "Viharas" with sketches. (10 Marks)

OR

- 2 Elaborate in detail with relevant sketches any one example of distinct Jain temple architecture. (20 Marks)

Module-2

- 3 Illustrate and detail out with labeled sketches the evolution of temple structure of Ladhkhan and Durga temple. (20 Marks)

OR

- 4 Trace the evolution of Hindu temple structure with relevant sketches and structural details. (20 Marks)

Module-3

- 5 Explain the unique features of the following temples:
a. Brihadeshwara temple
b. Mecnakshi temple. (20 Marks)

OR

- 6 With elaborate details in sketches describe the features:
a. Gopuram
b. Vimana
c. Panchayatana Plan
d. Antarmala. (20 Marks)

Module-4

- 7 a. Elaborate on the salient features of "Vijaynagar styles temples". (10 Marks)
b. With details in sketches mention the significant movements of temple complex of Hampi, Karnataka. (10 Marks)

OR

- 8 a. State the unique features of Orissan temple and relate its design to the "Cosmic Man's Body Structure". (12 Marks)
b. Write a short note on the Lingaraj temple, Bhubaneswar. (08 Marks)

Module-5

- 9 Gujarat style of Architecture is credited for building Surya temple of Modhera and Osian, detail out on both with relevant sketches. (20 Marks)

OR

- 10 Detail out with the help of sketches on the Khajuraho group of temples. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.

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Second Semester B.Arch. Degree Examination, June/July 2023

Site Surveying and Analysis

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define surveying. Briefly explain Geodetic Surveying and Plane surveying. (06 Marks)
- b. Explain the classification of surveying. (08 Marks)
- c. The area of the plan of an old survey plotted to a scale of 10 meters to 1cm measures now as 100.2 sq.cm as found by a planimeter. The plan is found to have shrunk so that a line originally 10cm long now measures 9.7cm only. Find :
- i) The shrunk scale
- ii) True area of the survey. (06 Marks)

OR

- 2 a. Explain in brief :
- i) Basic principles of surveying
- ii) The character of the work of a surveyor. (10 Marks)
- b. List various methods and equipment used in linear measurement. Explain instrument of chaining briefly. (08 Marks)
- c. Distinguish between offset rod and ranging rod. (02 Marks)

Module-2

- 3 a. Explain ranging and its purpose. List different types of ranging. Explain one in detail. (12 Marks)
- b. Explain the advantages and disadvantages of plane table surveying. (08 Marks)

OR

- 4 a. Describe the methods to erect a perpendicular to a chain line from a point on it through diagrams. (08 Marks)
- b. Explain the steps for setting-up, recording readings and drawing in PLANE TABLE surveying. (08 Marks)
- c. Explain a well-conditioned triangle and its importance in surveying. (04 Marks)

Module-3

- 5 a. Define leveling. List all instruments used for levelling. (04 Marks)
- b. Explain the following terms :
- i) Level surface
- ii) Mean sea level
- iii) Benchmark. (06 Marks)
- c. For booking and reducing levels, explain in detail – 'Rise and fall' method. (10 Marks)

OR

- 6 a. Explain with diagram for chain surveying :
 i) Triangulation
 ii) ILL – conditioned triangle
 iii) Types of chain used. (06 Marks)
- b. Explain in brief :
 i) Fore sight
 ii) Back sight
 iii) Reduce level. (06 Marks)
- c. Briefly describe the four stages of site planning. (08 Marks)

Module-4

- 7 a. With a neat sketch explain different characteristics of contours. (06 Marks)
- b. With neat sketches describe indirect method of locating contours. (04 Marks)
- c. Explain following :
 i) The vertical axis
 ii) Line of sight and collimation
 iii) GPS
 iv) Remote sensing
 v) Parallax. (10 Marks)

OR

- 8 a. Briefly describe any three type of land survey maps. (06 Marks)
- b. With sketches, explain profile leveling and cross sectioning. (04 Marks)
- c. Explain in brief :
 i) Optical axis of a telescope
 ii) Contour
 iii) Contour interval
 iv) Use of contour map
 v) Factors to be considered while selecting contour intervals. (10 Marks)

Module-5

- 9 a. List various on site factors influencing site planning. (06 Marks)
- b. Describe briefly the types of land survey drawings. (10 Marks)
- c. Explain the procedure for setting out of a building list instruments used for it. (04 Marks)

OR

- 10 a. Explain site analysis of following factors with diagrams :
 i) Climatic
 ii) Slope suitability (08 Marks)
- b. Briefly explain the following terms frequently used in setting out works.
 i) Stake
 ii) Batter –board
 iii) Post
 iv) Boring rod. (08 Marks)
- c. Draw following conventional symbols used on drawings :
 i) Cultivated land
 ii) Metalled road
 iii) Barbed wire fence
 iv) Rail fence. (04 Marks)

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21ENG26

Second Semester B.Arch. Degree Examination, June/July 2023 Building Structure - I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Write important properties of Steel, Wood, Aluminium. (10 Marks)
b. Calculate the dead load of R.C.C beam of size 25cm × 50cm, length of beam is 5m, unit weight of R.C.C beam is given by 25kN/m³. (10 Marks)

OR

- 2 a. Explain the following : (10 Marks)
i) Live load
ii) Dead load
iii) Gravity load
iv) Lateral load.
b. What is Reinforced Cement Concrete? Mention the important properties of cement and steel. (10 Marks)

Module-2

- 3 a. Explain : (10 Marks)
i) Force and classification of force system
ii) Parallelogram law of forces.
b. Determine the magnitude and direction of the resultant force, for the coplanar concurrent force system shown in Fig.Q3(b).

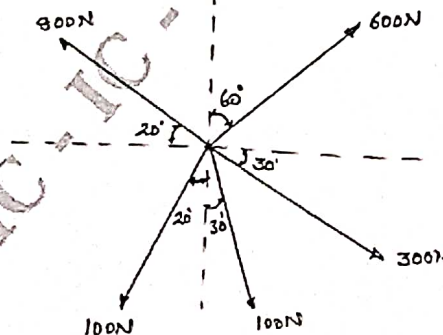


Fig.Q3(b)

(10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 4 a. Explain the characteristics of a force. (05 Marks)
 b. Explain the principle of transmissibility. (05 Marks)
 c. For the coplanar concurrent force system shown in Fig.Q4(c). The magnitude and direction of the resultant force is 500kN and is acting along x-axis. Determine the unknown force P.

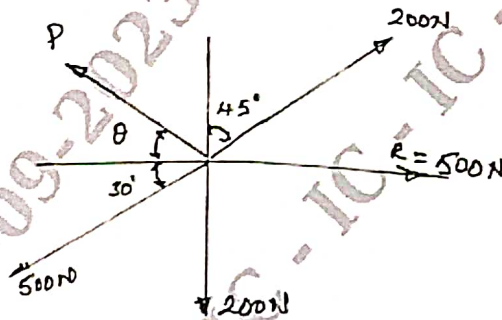


Fig.Q4(c)

(10 Marks)

Module-3

- 5 a. For the coplanar non-concurrent force system shown in Fig.Q5(a) below. Determine the magnitude direction and position of the resultant force with respect to point 'A'.

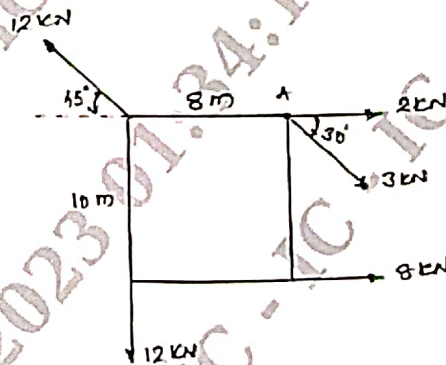


Fig.Q5(a)

(10 Marks)

- b. Differentiate between :
 i) Resolution of force and composition of force
 ii) Rigid body and deformable body. (06 Marks)
 c. Find the moment of force $F = 600\text{N}$ about 'A' shown in Fig.Q5(c).

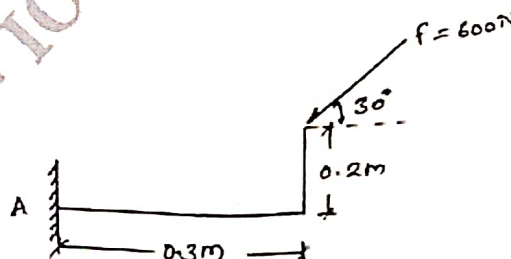


Fig.Q5(c)

(04 Marks)

- 6 a. With neat sketch, explain different types of supports.
 b. Find reactions for a cantilever beam shown in Fig.Q6(b). (08 Marks)

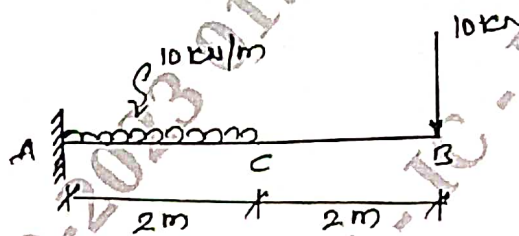


Fig.Q6(b)

(06 Marks)

- c. Determine the distance x such that R_A and R_D are equal for the beam shown in Fig.Q6(c).

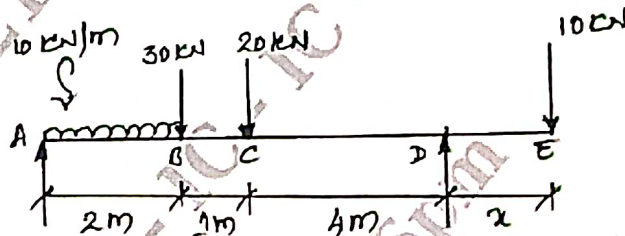


Fig.Q6(c)

(06 Marks)

Module-4

- 7 a. Determine the Centroid of the area shown in Fig.Q7(a).

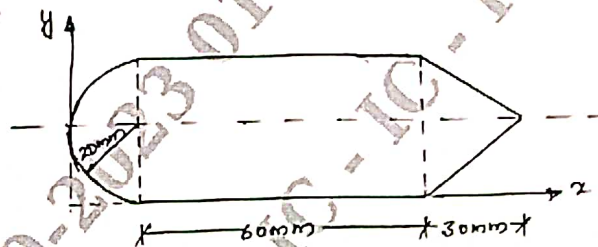


Fig.Q7(a)

(10 Marks)

- b. Locate the Centroid for the composite section shown in Fig.Q7(b).

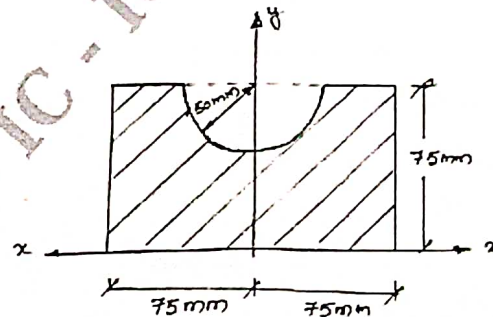


Fig.Q7(b)

(10 Marks)

OR

- 8 a. State and prove parallel axis theorem. (06 Marks)
 b. Determine the moment of inertia for T-section shown in Fig.Q8(b).

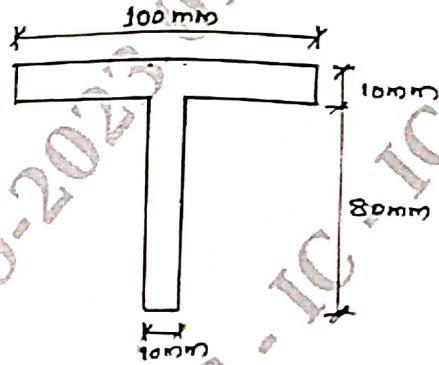


Fig.Q8(b)

(14 Marks)

Module-5

- 9 Briefly explain the methods used for the analysis of truss. (20 Marks)

OR

- 10 Analyse the truss shown in Fig.Q10 by method of joints.

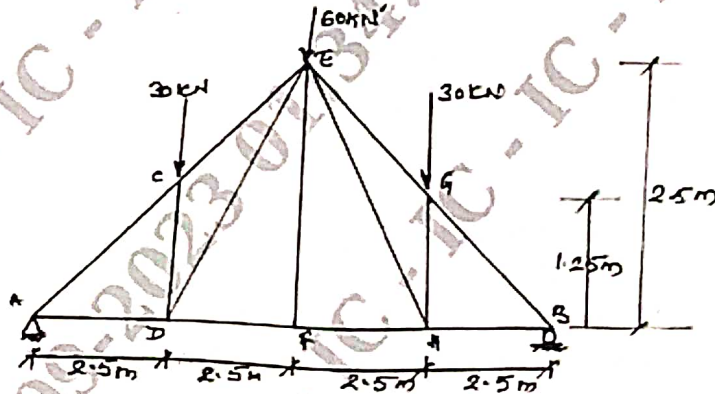


Fig.Q10

(20 Marks)

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18ENG25

Second Semester B.Arch. Degree Examination, Dec.2023/Jan.2024
Building Structures - II

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define i) Tensile stress ii) Shear stress iii) Hookes Law iv) Factor of Safety. (04 Marks)
- b. An axial pull of 35000N is acting on a bar consisting of three lengths as shown in Fig. Q1(b). If the Young's modulus $E = 2.1 \times 10^5 \text{ N/mm}^2$. Determine
 i) Stress in each section ii) Total extension of the Bar. (10 Marks)

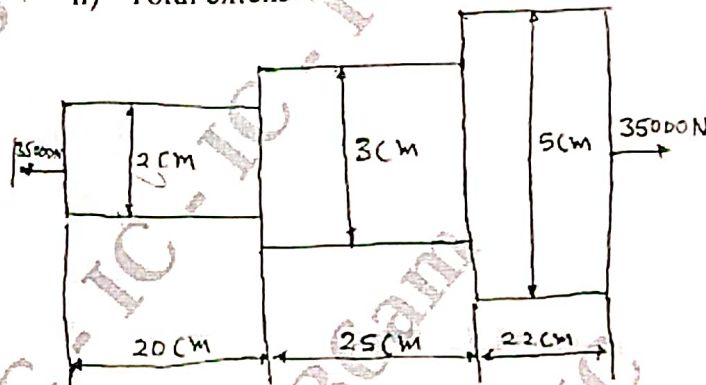


Fig. Q1(b)

- c. A Brass bar having cross-sectional area 300 mm^2 is subjected to axial forces as shown in Fig. Q1(c). Find the elongation of the Bar $E = 84 \text{ GPa}$. (06 Marks)

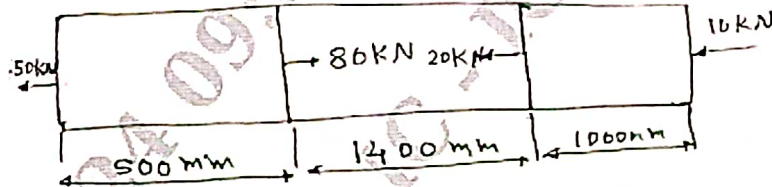


Fig. Q1(c)

OR

- 2 a. With the help of neat sketch, explain Stress-Strain curve of Mild steel specimen. (08 Marks)
- b. Explain briefly : i) Poisson's Ratio ii) Bulk modulus iii) Volumetric strain
 iv) Rotation between E & G. (04 Marks)
- c. A 1.5m long steel bar is having uniform diameter of 40mm for a length of 1m and in the next 0.5m its diameter gradually reduces from 40mm to 20mm as shown in Fig. Q2(c). Determine the elongation of this bar when subjected to an axial tensile load of 160kN. Given $E = 200 \text{ GN/m}^2$. (08 Marks)

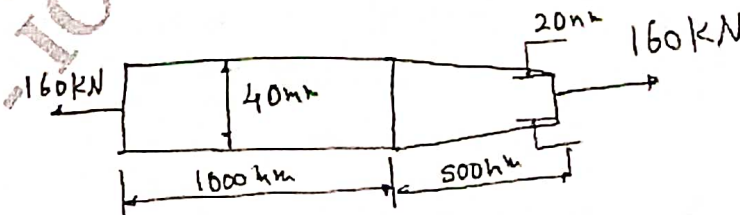
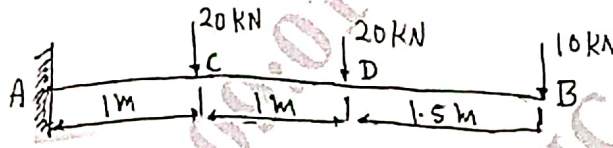


Fig. Q2(c)

Module-2

- 3 a. Define Shear force and Bending moment with sign convention. (06 Marks)
b. Calculate Shear force and Bending moment and draw SFD and BMD for Fig. Q3(b). (14 Marks)

Fig. Q3(b)



OR

- 4 a. Draw SFD and BMD for a Cantilever beam subject to UDL of W kN/m for the whole length 'L'. (06 Marks)
b. A simply supported beam of length 6m, carries point load of 3kN and 6kN at distances of 2m and 4m from the left end. Draw the shear force and bending moment. Diagrams for the beam. (14 Marks)

Module-3

- 5 a. State the assumptions made in theory of Simple Bending. (06 Marks)
b. The T section in Fig. Q5(b) is used as a simply supported beam over a span of 8m. It carries a udl of 1.5kN/m over its entire span. Calculate the maximum tensile and compressive stresses occurring in the section. (14 Marks)

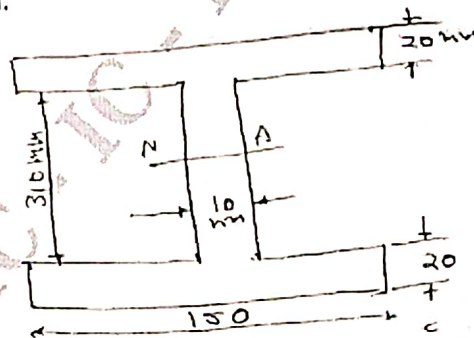
Fig. Q5(b)



OR

- 6 a. A rectangular beam 100mm wide and 250mm deep is subjected to a maximum shear force of 50kN. Determine i) Average shear stress ii) Maximum shear stress iii) Shear stress at a distance of 25mm above the Neutral axis. iv) Shear stress at N.A. (10 Marks)
b. An I-section beam 350mm \times 150mm has a web thickness of 10mm and a Flange thickness of 20mm. If the shear force acting on the section is 40kN, find the maximum shear stress developed in the I-section. (10 Marks)

Fig. Q6(b)



Module-4

- 7 a. Define Slenderness Ratio and Buckling load. (04 Marks)
b. Explain the limitations of Euler's theory. (06 Marks)

- c. A built up I-section has an overall depth of 400mm, Width of Flanges 300mm, Thickness of flanges 50mm and Web thickness 30mm. Simply supported ends and it deflects by 10mm when subjected to a load of 40kN/m length. Find the safe load if this I-section is used as a column with both ends hinged. Use Euler's formula. Assume a Factor of safety 1.75 and take $E = 2 \times 10^5 \text{ N/mm}^2$. (10 Marks)

OR

- 8 a. A 1.5m long column has a circular cross section of 50mm diameter, one end of the column is fixed in direction and position and other end is free. Taking the FOS as 3, calculate the safe load using i) Euler's formula taking $E = 1.2 \times 10^5 \text{ N/mm}^2$.
ii) Rankine formula taking Yield stress 560 N/mm^2 and $a = \frac{1}{1600}$. (10 Marks)
- b. A hollow circular section 2.8m long column, one end fixed and hinged at other end. External diameter is 150mm and thickness of wall is 15mm. Rankine's constant $= \frac{1}{1600}$ and $\sigma_c = 550 \text{ MPa}$. Compare the buckling loads. Obtained by Euler's formula and Rankine's formula. Take $E = 80 \text{ GPa}$. (10 Marks)

Module-5

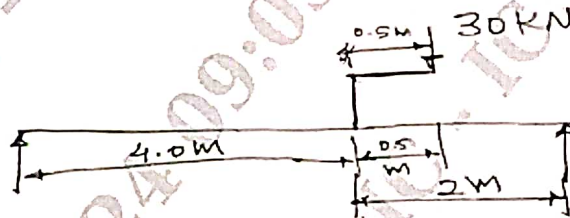
- 9 a. Determine the maximum slope and maximum deflection for a cantilever beam shown in Fig. Q9(a) in terms of EI. (10 Marks)

Fig. Q9(a)



- b. Find the deflection at 'C' for the beam shown in Fig. Q9(b). $EI = 1 \times 10^{13} \text{ N mm}^2$. Use Macaulay's method. (10 Marks)

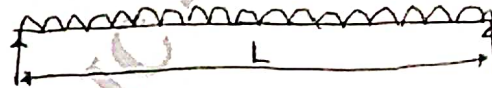
Fig. Q9(b)



OR

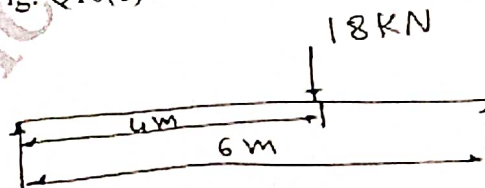
- 10 a. Determine the slope at supports and maximum deflection of the beam shown in Fig. Q10(a) in terms of EI. (10 Marks)

Fig. Q10(a)



- b. Determine the i) Slope at mid point and ii) Deflection under the load. $EIS = 200 \text{ GPa}$. $I = 15 \times 10^6 \text{ mm}^4$. Refer Fig. Q10(b). (10 Marks)

Fig. Q10(b)



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Question Paper Version : C

Second Semester B.Arch./B.Planning Degree Examination, June/July 2023
Professional Writing Skills in English

[Time: 2 hrs.]

[Max. Marks: 100]

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the hundred questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.
4. Darkening two circles for the same question makes the answer invalid.
5. Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.

General English Questions on Pronoun Correction :

1. Correct the sentence if necessary.
One should respect his elders.
a) One should respect his elders b) One should respect her elders
c) One should respect one's elders d) None of the above
2. Correct the sentence if necessary.
One should respect his own Country.
a) One should respect his own Country. b) One should respect her own Country.
c) One should respect their own Country d) One should respect one's own Country.
3. Correct the sentence if necessary.
One must love his parents.
a) One must love her parents. b) One must love his parents.
c) One must love their parents d) One must love one's parents.
4. Correct the sentence if necessary. I and Jimmy went home.
a) I and Jimmy went home b) Jimmy and I went home.
c) A and B d) None of the above
5. Correct the sentence if necessary.
I and she are friends.
a) I and she are friends b) She and I are friends
c) She and me are friends d) None of the above
6. Correct the sentence if necessary.
I and Dhoni went to College
a) I and Dhoni went to College b) Dhoni and I went to College
c) Dhoni and me went to College d) None of the above

7. **Correct the sentence if necessary.**
Both he and you must attend the meeting.
a) Both he and you must attend the meeting b) Both you and he must attend the meeting
c) A and B d) None of the above
8. **Correct the sentence if necessary.**
Peter invited me and you to dinner.
a) Peter invited you and me to dinner. b) Peter invited me and you to dinner
c) A and B d) None of the above
9. **Correct the sentence if necessary.**
I, you and she can do it.
a) I, you and she can do it b) You, I and she can do it
c) You, she and I can do it d) She, you and I can do it
10. **Correct the sentence if necessary.**
None of the three questions are simple.
a) None of the three questions are simple b) None of the three questions is simple
c) A and B d) None of the above.
- Sentence Arrangement Questions :**
11. All religions are : (P) to advance the cause of peace (Q) in a holy partnership (R) justice and freedom (S) bound together.
a) PQRS b) PRQS c) SPQR d) SQPR
12. A. Totally personal agenda will never bring about this level of fulfillment because that has to result from integration - and not be a substitute for it.
B. One's consciousness then becomes centred in the identity of the soul.
C. Realising ourselves and our potential entails becoming a pure reflection and manifestation of the inner self.
D. Since the soul lives by different laws and values, there is a fundamental conflict in human nature that must be resolved if integration and fulfillment is to be complete.
a) DCAB b) ABCD c) CBDA d) CABD
13. A. Providing benefits for women and children is a societal responsibility which can be funded in a large country through a combination of general taxation and contributory payments.
B. This should further lead to close scrutiny of the difficulties faced by unorganized workers who fall beyond the scope of any worthwhile labour welfare measures.
C. The enhancement of paid maternity leave for women in the organized sector to 26 weeks from 12 is a progressive step.
D. The reported move to restrict even this meager benefit to the first child for budgetary reasons is retrograde and must be given up.
E. Positive though it is, the amended law is expected to cover only 1.8 million women, a small subset of women in the workforce.
Which of the following would be the SECOND sentence after rearrangement?
a) F b) A c) E d) B

14. A. One evidence of this is that many highly intelligent people are very low on creativity.
 B. In other words they may find replicating a process very easy but creating a process difficult.
 C. But it is unfortunate that in many organisations these replicates are rated high and promoted over creators.
 D. Intelligence and creativity are two different things.
 E. They may understand the things very fast but are poor if any new thing is to be developed; this in long term gives creators an upper edge.
 Which of the following will be the SECOND sentence?
 a) A b) B c) C d) D

15. In the following question, a disarranged sentence is given in which words or phrases are lettered P, Q, R, S... You have to arrange these to form a meaningful sentence.
 P : tramp Q : I was R : as free S : as a
 a) Q R S P b) Q P R S c) P Q R S d) P R S Q

Find out whether there is any grammatical error in below sentence :

16. If you cannot / sympathy with the poor , / how will you be / able todo social work?
 a) If you cannot b) sympathy with the poor
 c) how will you be d) able to do social work?
17. On resuming his duty, / he asked his superiors / that whether he would be / permitted to leave early.
 a) On resuming his duty b) he asked his superiors
 c) that whether he would be d) permitted to leave early
18. What is needed today is / a new breed of managers / with a new set of concepts / and a flexible way about thinking.
 a) What is needed today is b) a new breed of managers
 c) with a new set of concepts d) and a flexible way about thinking
19. The basket of apples / sent by the gardener / contained a number of / green mangoes also.
 a) The basket of apples b) sent by the gardener
 c) contained a number of d) No error
20. This is one of / the most interesting book / I have / ever read.
 a) This is one of b) the most interesting book
 c) I have d) ever read
21. He was very disappointed / when he found / that someone else / had secured higher marks.
 a) He was very disappointed b) when he found
 c) that someone else d) No error
22. Every statement must have a subject and a _____
 a) noun b) verb c) predicate d) phrase
23. **Choose the correct statement :**
 a) Do not make friend with selfish people b) Do not make friendship with selfish people
 c) Do not make friends with selfish people d) Do not make friendly with selfish people

24. Choose the correct statement :
- She doesn't know the reason for his disappearance.
 - She doesn't know the reason of his disappearance.
 - She doesn't know the reason at his disappearance.
 - She doesn't know the reason with his disappearance.
25. Some students are _____ at copying.
- adapt
 - adept
 - adopt
 - edept
26. Father _____ me not to go out in the cold.
- adviced
 - advised
 - advice
 - advise
27. Which of these should be avoided in the message of a speech?
- Clarity
 - Confusion
 - Voice Modulation
 - Politeness
28. Which of these is the most important element of the speech process?
- Message
 - Audience
 - Feedback
 - Speech style
29. Which of these factors need not be considered while preparing speech for the audience?
- Number of people
 - Age of audience
 - Appearance of audience
 - Nature of pupose
30. Which of these means to omit?
- Accept
 - Except
 - Accept
 - Excerpt
31. Which of these means to influence?
- Affect
 - Efect
 - Effect
 - Affecct
32. _____ is the most important city of a Country.
- Capitol
 - Capetol
 - Capital
 - Capitalisation
33. Which of these is an adjective?
- Course
 - Coourse
 - Caorse
 - Coarse
34. Fill in the blank.
She writes everyday in her _____
- dairy
 - diary
 - deary
 - diery
35. Which of these expresses distance?
- Farther
 - Father
 - Further
 - Ferther
36. _____ refers to the second - mentioned thing of two things.
- Later
 - Latter
 - Latte
 - Late
37. Which of these is a conjunction?
- Weather
 - Peace
 - Piece
 - Whether
38. Which of these means a piece of wood?
- Wage
 - Wadge
 - Wedge
 - Wedje

39. What is a participle called when it is used as a simple qualifying adjective in front of a noun?
 a) Past participle
 b) Participial adjective
 c) Participial noun
 d) Participial adverb
40. Fill in the blank with present participle :
 I met a boy _____ a box of chocolates.
 a) carried
 b) carrying
 c) was carrying
 d) had carrying
41. Pick out the participle in the following sentence :
 Knowing his aptitude, he should have scored more runs.
 a) Knowing
 b) Aptitude
 c) Scored
 d) Runs
42. Fill in the blank with past participle :
 _____ by hate, he lashed out with a knife.
 a) Blinding
 b) Blinded
 c) Blind
 d) Having blind
43. Words of same sound is?
 a) Soundnoms
 b) Antonyms
 c) Homonyms
 d) None of these
44. Sounding the same but spelt differently?
 a) Symphonious
 b) Homophonous
 c) Synonyms
 d) Saminymous
45. We _____ at the party.
 a) Enjoyed ourself
 b) Enjoyed ourselves
 c) Played with
 d) None of these.
- Choose the appropriate answers :**
46. Which of these reports is written before starting a new project?
 a) Feasibility report
 b) Periodic report
 c) Trouble report
 d) Progress report
47. Which of these reports lists down precautions?
 a) Progress report
 b) Periodic report
 c) Trouble report
 d) Feasibility report
48. In which of these cases is the letter form of report not used?
 a) When reader is a close associate
 b) When subject matter is brief
 c) When there is breakdown of machinery
 d) When subject matter pertains to a few topics
49. Where is the signature mentioned in a memorandum?
 a) Top left
 b) Top right
 c) Bottom left
 d) Bottom right
50. Interviews are conversations with _____
 a) fun
 b) purpose
 c) friendliness
 d) informality
51. Which kind of interview includes a process in which the employability of the job applicant is evaluated?
 a) Stress interview
 b) Screening interview
 c) Group interview
 d) Behavioural interview

52. How many styles are used in a screening interview?
 a) Two b) Five c) Three d) Four
53. In which of these interviews, insults are common?
 a) Screening interview b) Stress interview
 c) Behavioural interview d) Group interview
54. Which of these interviews is adapted for computer programmers?
 a) The stress interview b) The group interview
 c) The screening interview d) The audition
55. In which of these, more than one candidate is interviewed?
 a) The Behavioural interview b) The Stress interview
 c) The group interview d) The audition
56. Which of these interviews is taken for a candidate far away?
 a) Lunch interview b) Telephone c) Stress interview d) Group interview
57. Which of these is not a part of a proposal?
 a) First page b) Outline c) Complaint d) Contents
58. Which of these does the title and first page not includes?
 a) Brief information of the proposal b) Name of the institution
 c) Nationality of the person submitting the proposal
 d) Name of the person submitting the proposal.
59. Which of these is the most important part of the proposal?
 a) Title and first page b) Abstract c) Contents d) Experience
60. Where is the proforma placed in a proposal?
 a) After title b) After contents c) After introduction d) After outline
61. **Fill in the blank :** Neither he nor I _____ present.
 a) were b) was c) are d) am
62. **Correct the statement :**
 Your best bet are free tickets.
 a) Your best bet is free tickets b) Your best bet were free tickets
 c) Your best bet am free tickets d) Your best bet seems free tickets.
63. **Choose the correct statement :**
 a) The fire caused many damages b) The fire caused much damage
 c) The fire caused many damage d) The fire caused much damages
64. **Fill in the blank :** The ship _____ set sail
 a) has b) is c) was d) have

65. **Correct the statement :**
Bread and butter are my favourite breakfast
- Bread and butter is my favourite breakfast.
 - Bread and butters are my favourite breakfast.
 - Breads and butters are my favourite breakfast.
 - Breads and butter are my favourite breakfast.
66. **Fill in the blank :** None of the students _____ happy with the teacher.
- were
 - was
 - have
 - has
67. **Fill in the blank :** bismillah Khan plays _____ shehnai with great skill.
- a
 - an
 - the
 - a or the
68. **Correct the incorrect statement :**
How gentle person Mr. Bhatia is!
- How gentle a person Mr. Bhatia is!
 - How gentle the person Mr. Bhatia is!
 - How gentle person the Mr. Bhatia is!
 - How a sgentle person Mr. Bhatia is!
69. **Fill in the blank :** Neha has left for _____ United States of America.
- a
 - the
 - an
 - to
70. **Fill in the blank :** He lives _____ Bezonbagh _____ Nagpur
- in , at
 - at , in
 - at , on
 - on , at
71. **Fill in the blank :** The cat sprang _____ me
- on
 - upon
 - in
 - at
72. **Choose the correct statement :**
- She walked till the end of the road
 - She walked to the end of the road
 - She walked at the end of the road
 - She walked on the end of the road
73. **Fill in the blank :** The factory began production _____ 22nd July.
- since
 - from
 - by
 - at
74. **Choose the correct statement :**
- Kunal has been absent for five days.
 - Kunal has been absent since five days.
 - Kunal has been absent from five days.
 - Kunal has been absent till five days.
75. **Correct the incorrect statement :** I've got nobody to talk
- I've got nobody to talk to.
 - I've got nobody to talk with.
 - I've got nobody to talk from.
 - I've got nobody to talk into.
76. **Which of these statements belong to present continuous tense (plural)?**
- We are writing a letter.
 - She is writing a letter
 - They were writing a letter
 - We were writing a letter
77. **To which of these tenses does the following statement belong?**
We were watching television all day
- Simple past tense
 - Past continuous tense
 - Past perfect tense
 - Past perfect continuous tense

78. Fill in with past perfect tense : I _____ my homework when my uncle arrived.
 a) completed b) had completed c) was completing d) had been completing
79. Which of these is an example of simple present tense?
 a) I am going to Delhi tomorrow b) There she goes !
 c) He has just gone out. d) I am reading the Gita.
80. Which of these words is correct?
 a) Bureau b) Beaurau c) Bereau d) Bureu
81. Fill in the blank : My watch is five minutes _____
 a) behind b) before c) slow d) early
82. Choose the correct statement :
 a) It is dirty, throw it b) It is dirty, throw it away
 c) It is dirty, give it d) It is dirty, give it away.
83. Fill in the blank :
 I _____ down for an hour every afternoon
 a) lay b) lie c) laid d) lye
84. Choose the correct statement :
 a) He tore the letter in anger. b) He tore up the letter in anger.
 c) He teared the letter in anger. d) He teared up the letter in anger.
85. Fill in the blank : The thief has _____ all my belongings.
 a) robbed b) taken c) stolen d) taken away
86. Which of these explains a subject?
 a) Narrative essays b) Expository essays
 c) Argumentative essays d) Reflective essays
87. Which kind of essay uses the five senses (touch , smell , taste , sound , sight) to enhance the imagery of the setting?
 a) Narrative essays b) Descriptive essays
 c) Expository essays d) Argumentative essays
88. Convert the following direct speech to indirect speech :
 She said, "We will analyse this tomorrow".
 a) She said that they would analyse it the next day.
 b) She said that we would analyse it the next day.
 c) She said that they will analyse it the next day.
 d) She said that we will analyse it the next day.
89. Convert the following direct speech to indirect :
 She said, "Thank you !"
 a) She thanked me b) She said me thank you
 c) She said thank you to me d) She said thank you.

90. Convert the following sentence in direct speech to indirect speech :
She said, "Can you read?" and I said "yes".
- She asked me can you read and I said yes
 - She asked me if I could read and I said that I could.
 - She asked me can you read and I said that I could.
 - She asked me if I could read and I said yes.
91. Convert the following active form to passive form :
I was determined to mortgage the car.
- I was determined that the car should be mortgaged.
 - The car was determined to be mortgaged.
 - I was determined that car will be mortgaged.
 - I am determined that car will be mortgaged.
92. Which of these is not an use of the passive voice?
- When we know about the doer of the action
 - When the subject of the active verb would be people.
 - To avoid awkward of ungrammatical sentences.
 - When an active form would create problems for the speaker.
93. Which of these is not a part of speech?
- Noun
 - Verb
 - Preposition
 - Object
94. In the following sentence, replace the verb by a noun :
He fought bravely.
- He put up a brave fight
 - A fight was put up bravely
 - A brave fight was put up
 - A fight is put up bravely.
95. In the following sentence, replace the adverb with a noun :
He watched the girl carefully.
- He watched her with care
 - He watched the girl with great care
 - With care he watched her.
 - Care was taken while watching her.
96. Which of these must be avoided in business letters?
- Polite words
 - Formal words
 - Abbreviations
 - Clear details
97. Which of these must not be mentioned in a business letter?
- Information of the quality of the order
 - Name of the firm
 - The mode of payment
 - With regards
98. Where should the name of the firm be mentioned?
- Right of the page
 - Below the address of the writer
 - Above the address of the writer
 - On the last page of the letter
99. Which of these is not a mode of address for any letter?
- To a tradesman
 - To a child
 - To a firm
 - To professional men
100. Which of these is not used to conclude a business letter?
- Yours faithfully
 - Yours truly
 - Yours sincerely
 - With kind regards

CBCS SCHEME

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18ENG25

Second Semester B.Arch. Degree Examination, June/July 2023 Building Structures – II

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. State and explain "Poisson's ratio". (04 Marks)
 b. Explain the concept of temperature stresses. (04 Marks)
 c. A mild steel bar 2000 mm long and of dia 30 mm is subjected to an axial pull of 30 kN. If $E = 2 \times 10^5 \text{ N/mm}^2$. Calculate stress, elongation of the bar and strain. (12 Marks)

OR

- 2 a. A bar which tapers uniformly from 50 mm diameter to 30 mm diameter in a length of 500 mm, is subjected to an axial pull of 6000 N. $E = 2 \times 10^5 \text{ N/mm}^2$. Calculate the extension of the bar. (07 Marks)
 b. A rectangular bar of steel is 3000 mm long and 10 mm thick. The bar is subjected to an axial pull of 50 kN. The width of the bar varies from 70 mm at one end to 28 mm at the other end. If $E = 2 \times 10^5 \text{ N/mm}^2$, calculate the extension of the bar. (07 Marks)
 c. State and explain the elastic constants and their relationship. (06 Marks)

Module-2

- 3 a. State and explain the concept of pure bending with illustration. (04 Marks)
 b. Draw SFD and BMD, indicate the salient values. (16 Marks)

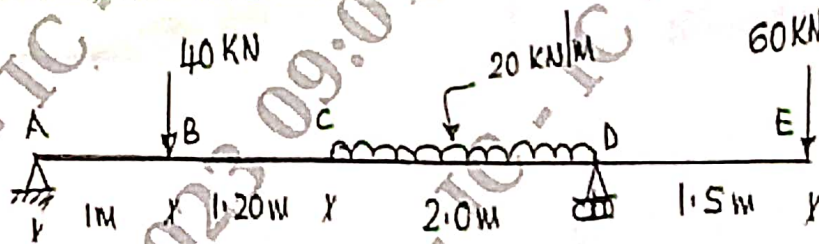


Fig. Q3 (b)

OR

- 4 a. State and explain "Point of Contraflexure" with illustration. (05 Marks)
 b. Draw SFD and BMD, indicate the salient values. (15 Marks)

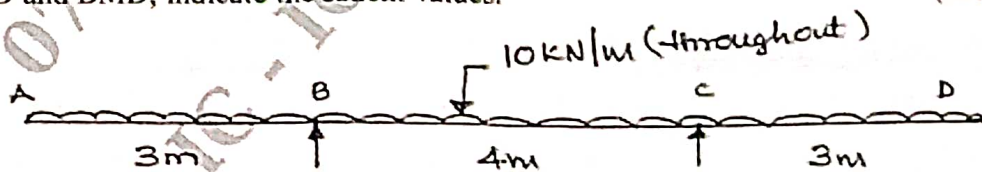


Fig. Q4 (b)

Important Note : 1. On completing your answers, carefully draw diagonal cross lines on the remaining blank space. 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-3

- 5 a. State and explain simple bending equation with usual notations. (05 Marks)
 b. A rectangular beam of width 250 mm and depth 480 mm is subjected to a BM of 200 kNm and SF of 150 kN. Sketch the variation of bending stress and shear stress across the cross section of the beam. (15 Marks)

OR

- 6 a. State and explain the equation to calculate shear stress across the cross section of a beam, with usual notations. (05 Marks)
 b. A T-beam of flange 100×15 mm and web 20×120 mm is subjected to a BM of 20 kNm and SF of 18 kN. Sketch the variation of bending stress and shear stress. (15 Marks)

Module-4

- 7 a. With neat sketches explain the effective length of a column for different end conditions. (08 Marks)
 b. A hollow mild steel tube 5000 mm long, 40 mm internal diameter and 5 mm thick wall, is used as a strut with both ends hinged. Calculate the crippling load if $E = 2 \times 10^5$ N/mm². Also calculate the safe load with a factor of safety 3. (12 Marks)

OR

- 8 a. State the assumptions made in Euler's theory of Long columns. (06 Marks)
 b. A hollow circular column of diameter ratio 0.75 is to carry an axial load of 250 kN with a factor of safety of 4. $E = 2.10 \times 10^5$ N/mm². Calculate the diameters if the length of the column is 6000 mm with one end fixed and other hinged. (14 Marks)

Module-5

- 9 Calculate the slope at the supports and deflection under the loads for the beam shown in Fig. Q9. $E = 2 \times 10^4$ kN/m², $I = 0.0003$ m⁴. (20 Marks)



Fig. Q9

OR

- 10 Calculate the slope at E and deflection at C and D for the beam shown in Fig. Q10. $EI = 15000$ kNm². (20 Marks)

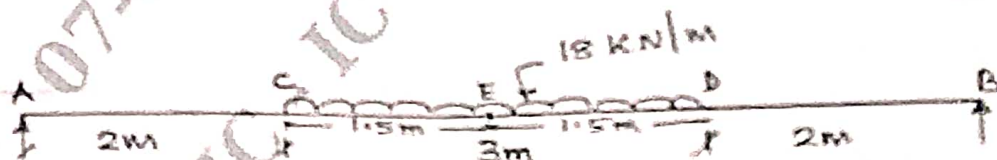


Fig. Q10

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Question Paper Version : C

Second Semester B.Arch./B.Planning Degree Examination, June/July 2023
Scientific Foundation of Health

Time: 1 hrs.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the fifty questions, each question carries one mark.
2. Use only Black ball point pen for writing / darkening the circles.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.
4. Darkening two circles for the same question makes the answer invalid.
5. Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.

-
1. Environmental Psychologists emphasize the importance of taking which of the following into consideration when examining behavior.
a) Genetics
b) Brain structure
c) Physical & Social context
d) None of these
 2. SUD is _____.
a) Substance Until Disorder
b) Substance Under Disorder
c) Substance Under Depression
d) Substance Use Disorder.
 3. Medical diagnosis of obesity is based on a BMI cut off point of _____.
a) 25.0
b) 30.0
c) 40.0
d) 50.C
 4. The positive stress is called as _____.
a) Eústress
b) Destress
c) Stressless
d) None of these
 5. Chicken guniya is _____ disease.
a) Hariditary
b) Deficiency
c) Pathogenic
d) Congential
 6. Skull consists of _____ bones.
a) 14 bones
b) 22 bones
c) 12 bones
d) 8 bones
 7. What does the '19' in "Covid- 19" refers to?
a) 19 variants of Corona virus
b) 19 symptoms of Corona virus disease
c) This is the 19th Corona virus pandemic.
d) The Corona virus and the disease it cause were identified in 2019.

8. Antibiotics are used (or) administered for the purpose _____
 a) to reduce pain b) to reduce edema c) to prevent infection d) to relieve fever
9. The percentage of water in the average adult human body.
 a) 80 % b) 60 % c) 40 % d) 90 %
10. Which of these is not an example of a Health behavior?
 a) Smoking b) Regular exercise c) Eating healthy food d) Walking
11. Which of these is not a step in the Listening process _____?
 a) Receiving b) To stop talking c) Misinterpreting d) Responding
12. Our dress code is an example of _____ Communication.
 a) Verbal b) Non-verbal c) Dramatic d) All of the above
13. Communication is a part of _____ skills
 a) Hard b) Soft c) Short d) Rough
14. Substance Addiction _____
 a) Behavioral addiction b) Heroin addiction
 c) Drug addiction d) All of the above
15. Which one of the following is not a bacterial disease?
 a) Cholera b) Tuberculosis c) Anthrax d) Influenza
16. _____ has a long term effect on the health of an Individual.
 a) Common cold b) Chicken pox c) Stress d) Chewing tobacco
17. The stimulant present in tea , coffee , coco cola drinks _____
 a) Caffeine b) Tannin c) Cocaine d) Astringent
18. Childhood blindness can be caused by _____
 a) HIV / AIDS b) Measles c) Malaria d) Tuberculosis
19. If an infectious agent can only multiple inside living cells, this agent _____.
 a) Bacteria b) Virus c) Parasite d) Fungus
20. Which organ is adversely affected by alcohol?
 a) Kidney b) Liver c) Heart d) Lungs
21. What does the term "Mortality" refer to?
 a) Death b) Illness c) Health d) Morbidity
22. Which of the following is not a components of skill - related physical fitness?
 a) Agility b) Muscular strength c) Coordination d) Reaction time
23. _____ means when person is healthy and free from Disease.
 a) Endurance b) Life style c) Wellness d) None of these

24. Anorexia nervosa typically begins on _____.
 a) A menorrhoea
 b) Dysmenorrhoea
 c) Fibrosis
 d) Premenstrual syndrome
25. Which is not a type of physical activity?
 a) Drinking
 b) Cycling
 c) Walking
 d) Dancing
26. The components of communication process are _____.
 a) Encoder
 b) Decoder
 c) Medium
 d) All of the above
27. The way of Information is translated into a message _____.
 a) Decoding
 b) Transmitting
 c) Encoding
 d) Medium
28. The response of the receiver takes after decoding a message.
 a) sender
 b) feedback
 c) receiver
 d) medium
29. _____ is a relationship of mutual affection between people.
 a) Friendship
 b) Mentorship
 c) Partnership
 d) Leadership
30. Qualities of a true friend _____.
 a) Forgives
 b) Believes
 c) Love with unconditional
 d) All of the above
31. Is Health is Internal (or) External?
 a) Internal
 b) External
 c) Both (a) & (b)
 d) None of the above
32. Positive emotional well being can be achieved through _____.
 a) Positive affirmation
 b) Smile
 c) Stay positive
 d) All of the above
33. Overall Health is constituted by _____.
 a) Physical Health
 b) Mental Health
 c) Financial Health
 d) All of the above
34. Good Mental Health is categorized on _____.
 a) Absence of depression
 b) Absence of Anxiety
 c) Ability of face challenges
 d) All of the above
35. A person who suffers from mental illness always see him as _____.
 a) Pessimist
 b) Sad
 c) Negative
 d) All of the above
36. Benefits of Good health are _____.
 a) Increased longevity
 b) Improved energy
 c) Good immunity and mental clarity
 d) All of the above
37. Good personality needs _____.
 a) Healthy Body
 b) Healthy mind
 c) Wealthy
 d) Both (a) & (b)
38. Health Disparities includes _____.
 a) Mortality
 b) Life expectancy
 c) Burden of disease
 d) All of the above