INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

1. Within 10 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, Bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.

2. Do not bring any loose paper, written or blank, inside the Examination Hall except the Admit Card without its envelope.

3. A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.

4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.

5. On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.

6. No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.

7. Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.

8. This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.

9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.

10. Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).

11. For rough work, use the inner back pages of the title cover and the blank page at the end of this Booklet.

12. Deposit both OMR Answer Sheet and Question Booklet at the end of the Test.

13. You are not permitted to leave the Examination Hall until the end of the Test.

14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment the University may determine and impose on him/her.

Total No. of Printed Pages: 16
ROUGH WORK
No. of Questions : 50

Time : 2 Hours

Full Marks : 200

Note: (1) This Question Booklet contains 40 Multiple Choice Questions followed by 10 Short Answer Questions.

(2) Attempt as many MCQs as you can. Each MCQ carries 3 (Three) marks. 1 (One) mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question. If more than one alternative answers of MCQs seem to be approximate to the correct answer, choose the closest one.

(3) Answer only 5 Short Answer Questions. Each question carries 16 (Sixteen) marks and should be answered in 150-200 words. Blank 5 (Five) pages attached with this booklet shall only be used for the purpose. Answer each question on separate page after writing Question No.

01. Which of the following is pluripotent cell
   (1) Stem cell                      (2) Sertoli cells
   (3) Memory t cells              (4) Langerhans cells

02. Which of the following is NOT a lymphoid organ
   (1) Lymphnodes                  (2) Tonsils
   (3) Thyroid                     (4) Spleen

03. Enzymes for kreb cycle are located in
   (1) Mitochondria                (2) Cytoplasm
   (3) Peroxisomes                 (4) Nucleus

04. Which of the following is a non communicable disease
   (1) HIV                         (2) Tuberculosis
   (3) Measles                     (4) Tetanus

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P.T.O.
05. Which of the following is NOT a part of immune system of the body?
   (1) Langerhans cells  (2) Helper T cells
   (3) Histiocytes  (4) Reticulocytes

06. Ovulation occurs at
   (1) 5th day of menstrual cycle  (2) 14th day of menstrual cycle
   (3) 21st day of menstrual cycle  (4) 28th day of menstrual cycle

07. Amount of growth hormone secretion reach its peak by
   (1) 8 am  (2) 8 pm
   (3) 12 am  (4) 12 pm

08. Which of the following is false?
   (1) Bones are attached to other bones by means of tendon
   (2) Bones are attached to muscles by means ligaments
   (3) Bones are joined to other bones by mean of articular cartilage
   (4) Bones are joint to each other by mean of fibrous tissue

09. Regulators of thirst and hunger centre is present in
   (1) Medulla  (2) Midbrain
   (3) Hypothalamus  (4) Cortex

10. Which of the following is NOT included in the stages of embryological development?
   (1) Insemination  (2) Gastrulation
   (3) Blastula formation  (4) Morula formation
11. WHO recommended method of sampling to estimate immunization coverage in developing countries is:
   (1) Simple random sampling
   (2) Stratified random sampling
   (3) 30 cluster random sampling
   (4) Multi-stage random sampling

12. Standard deviation measures:
   (1) Central value
   (3) Dispersion
   (2) Locations other than central
   (4) Distribution

13. In a normal (Gaussian) curve, the area between 2 SD from mean on either side is:
   (1) 68%
   (2) 90%
   (3) 95%
   (4) 99%

14. If mean, median and mode are 18, 22 and 30 respectively, the distribution is:
   (1) Symmetrical
   (2) Skewed
   (3) Can be symmetric, can be skewed
   (4) Cannot be decided

15. For a Gaussian distribution all of the following are true except:
   (1) Mean median and mode are same
   (2) It can have two modes
   (3) Bell shaped
   (4) Mean ± 2SD includes nearly 95% observation

16. The range of correlation coefficient is:
   (1) Between 0 and +1
   (2) Between -1 to +1
   (3) Between -1 to 0
   (4) Between -∞ to +∞
17. In a study of 30 patients of liver cirrhosis, enzyme level was evaluated before and after the treatment. The test of significance would be :
(1) Paired t test
(2) Unpaired t test
(3) Chi square test
(4) McNemar test

18. If two samples are drawn from two non Gaussian population, to test that the two population’s distribution is similar or different, one should apply :
(1) Unpaired t test
(2) Wilcoxon sign rank test
(3) Mann Whitney test
(4) None of the above

19. There are gaps in our knowledge about natural history of chronic diseases. Following is not a good example of the gap in knowledge
(1) Absence of known agent
(2) Multifunctional causation
(3) Short incubation period
(4) Long latent period

20. One of the following strategies does not come under primordial prevention of CHD
(1) High risk strategy
(2) Specific advice
(3) Coronary surgery
(4) General advice on diet

21. Following is the non-modifiable risk factor for hypertension
(1) Saturated fat intake
(2) Age
(3) Salt intake
(4) Weigh

22. A type II diabetic person must do one of the following :
(1) Alcohol intake daily for mental peace
(2) Regular physical exercise
(3) Eat fruit daily like banana and oranges
(4) Must avoid dietary fiber in the diet
23. One of the following indicators is not useful to assess obesity
   (1) Quetelet's index  
   (2) Brocca index  
   (3) Container index  
   (4) Corpulence index

24. The number of deaths (from all causes) per 1000 estimated mid-year population in one year. In a given place is called as
   (1) Annual Risk of Dying  
   (2) Case fertility rate  
   (3) Disease specific mortality rate  
   (4) Death ratio

25. Following formula gives correct estimation:
   (1) Incidence = Prevalence \times duration  
   (2) Prevalence = incidence/duration  
   (3) Incidence = Prvealence/duration  
   (4) Prevalence = Duration/ Incidence

26. The following does not come under the study of epidemiology:
   (1) Unit of study is a defined population  
   (2) Unit of study is a clinical case  
   (3) Unit of study is population at risk  
   (4) It is study of both at risk & healthy

27. A man weighing 65 kg consumes 325 gm carbohydrate, 65 gm protein and 35 gm fats in his diet, the most applicable statement is:
   (1) His total calorie intake is 3000 Kcal  
   (2) He is in negative energy balance  
   (3) 30% of total energy is derived from fat  
   (4) The proportion of protein, fats and carbohydrate is correct and in accordance with a balance diet
28. All are water born disease, except
   (1) Leptospirosis  (2) Schistosomiosis
   (3) Fish tape Worm  (4) Brucellosis

29. Best test to detect iron deficiency in community is:
   (1) Serum Transferrin  (2) Serum Ferritin
   (3) Serum Iron  (4) Haemoglobin

30. Active principal of Lathyrus Sativus is
   (1) Sanguinarine  (2) Pyrrolizidine
   (3) BOAA  (4) Jhunjhunia

31. All are clinical features of epidemic dropsy except:
   (1) Glaucoma  (2) CHF
   (3) Convulsions  (4) Diarrhoea

32. All is true about malaria except:
   (1) Infant parasite index is a poor index for assessment for
       transmission of malaria in the community
   (2) Vector for transmission is Anopheles mosquito
   (3) New born are resistant to P. falciparum infection
   (4) A culicifacies is common in rural areas

33. Scrum typhus is transmitted by
   (1) Mite  (2) Louse
   (3) Flea  (4) Tick

34. Which of the following arboviral infection is not prevalent in India?
   (1) Dengue fever  (2) West Nile fever
   (3) Yellow fever  (4) Chikungunya
35. Vegetable fat differs from animal fat in being
   (1) More saturated
   (2) More Stable
   (3) More atherosclerotic
   (4) Contains less fat soluble vitamins

36. In calculating Dependency ratio, the numerator is expressed as:
   (1) Population under 10 years and 60 and above
   (2) Population under 15 years and 60 and above
   (3) Population under 10 years and 65 and above
   (4) Population under 15 years and 65 and above

37. Ideal Contraceptive for lactating women:
   (1) POP
   (2) IUCD
   (3) Lactational amenorrhoea
   (4) Barrier methods

38. The extra energy allowances needed per day during pregnancy is:
   (1) 150 K Cals
   (2) 200 K Cals
   (3) 350 K Cals
   (4) 550 K Cals

39. Leading Cause of maternal deaths in India is:
   (1) Anemia
   (2) Haemorrhage
   (3) Sepsis
   (4) Obstructed labour

40. The uppermost line of the 'rode to health card' is equivalent to:
   (1) 80% for boys
   (2) 50% for girls
   (3) 50th percentile for boys
   (4) 3rd percentile for girls
Short Answer Questions

Note: Attempt any five questions. Write answer in 150-200 words. Each question carries 16 marks. Answer each question on separate page, after writing Question Number.

01. Briefly describe the measures of Central Tendency and Measures of Dispersion.

02. Name different probability sampling and describe the stratified sampling procedure.

03. describe in brief test of significance Define parametric and non-parametric tests and write the condition when are these applied?

04. Write difference between endemic and epidemic.

05. What is the WHO criterion of blindness? Mention important causes of blindness.

06. Discuss different methods of diet survey.

07. Mention the objective, beneficiaries and programme contents of Integrated Child Development Scheme.

08. Enumerate food toxins. Give a brief account of clinical manifestations and prevention of any one of them.


अभ्यासियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर
केवल नीली-काली बाल-व्हाइट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 10 मिनट के अंदर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषपुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका अपने करें।

2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या साठा कोई भी खुला कागज साथ में न लायें।

3. उत्तर-पत्र अपने से दिया गया है। इसे न तो अपेक्षें और न ही विक्रय करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।

4. अपना अनुक्रमांक तथा उत्तर-पत्र का अनुक्रम प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।

5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये गए बुनियादी स्थान को गाढ़ा करें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नब्बा उचित स्थानों पर लिखें।

6. ओ.एम.टी. धरो हर वर्ष पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई ही) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ.एम.टी. वर्ष संख्या की प्रविधियों में उपलब्ध करने की अनुमति नहीं है।

7. उपर्युक्त प्रविधियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये, अन्यथा वह एक अनुमित स्थान का प्रयोग माना जायेगा।

8. प्रश्न-पुस्तिका में प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आवश्यक उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये बुनियादी व उत्तर पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करें।

9. प्रत्येक प्रश्न के उत्तर के लिए केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।

10. द्वारा में कि एक बार स्थायी अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो संबंधित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ें। ऐसे प्रश्नों पर स्पष्ट अंक दिये जायेंगे।

11. रफ कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।

12. परीक्षा के उपयोग के लिए एम.टी. आर-परीक्षा भवन में गम करें।

13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।

14. यदि कोई अप्रवृत्त परीक्षा में अनुमित स्थानों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निरीक्षित दंड का/की, भागी होगा/होगी।