

2016.

Set No. : 1

Question Booklet No.

RET/16/TEST-B

658

Community Medicine

(To be filled up by the candidate by blue/black ball point pen)

Roll No.

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Roll No. (Write the digits in words) .....

Serial No. of OMR Answer Sheet .....

Day and Date .....

( Signature of Invigilator )

### INSTRUCTIONS TO CANDIDATES

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

1. Within 30 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 as the University may determine and impose on him/her.

Total No. of Printed Pages : 20

9.

**RET/16/TEST-B**

**658/Community Medicine**

**ROUGH WORK**

रफ़ कार्य

## Research Entrance Test-2016

No. of Questions : 50

प्रश्नों की संख्या : 50

Time : 2 Hours

Full Marks : 200

समय : 2 घण्टे

पूर्णाङ्क : 200

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

इस प्रश्न पुस्तिका में **40** वस्तुनिष्ठ व **10** लघु उत्तरीय प्रश्न हैं।

**(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.

अधिकाधिक वस्तुनिष्ठ प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक वस्तुनिष्ठ प्रश्न **3 (तीन)** अंकों का है। प्रत्येक गलत उत्तर के लिए **1 (एक)** अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा। यदि वस्तुनिष्ठ प्रश्नों के एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हों, तो निकटतम सही उत्तर दें।

**(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.

केवल **5 (पाँच)** लघुउत्तरीय प्रश्नों के उत्तर दें। प्रत्येक प्रश्न **16 (सोलह)** अंकों का है तथा उनका उत्तर **150-200** शब्दों के बीच होना चाहिए। इसके लिए इस पुस्तिका में लगे हुए सादे **5 (पाँच)** पृष्ठों का ही उपयोग आवश्यक है। प्रत्येक प्रश्न का उत्तर एक नए पृष्ठ से, प्रश्न संख्या लिखकर शुरू करें।

- 01.** Which of the following is not synthesized in postganglionic sympathetic neuron ?
- |                    |                 |
|--------------------|-----------------|
| (1) L-DOPA         | (2) Dopamine    |
| (3) Norepinephrine | (4) Epinephrine |
- 02.** Which of the following drug is a tranquilizer ?
- |             |                    |
|-------------|--------------------|
| (1) LSD     | (2) Atropine       |
| (3) Lithium | (4) Chlorpromazine |
- 03.** Hysterectomy is the removal of ?
- |            |            |
|------------|------------|
| (1) Kindly | (2) Uterus |
| (3) Ovary  | (4) Testis |
- 04.** Which of the following is not essential for normal biosynthesis of thyroid hormone :
- |                   |              |
|-------------------|--------------|
| (1) Iodine        | (2) ferritin |
| (3) Thyroglobulin | (4) TSH      |
- 05.** Select the best statement for Lymphocytes :
- |                                                   |
|---------------------------------------------------|
| (1) are unaffected by hormones                    |
| (2) all originate from the bone marrow            |
| (3) are part of the body's defense against cancer |
| (4) convert to monocytes in response to antigen   |
- 06.** Basic principle involved in the doctor's thermometer (mercury thermometer) is :
- |                                                                  |
|------------------------------------------------------------------|
| (1) Thermal expansion of liquid                                  |
| (2) Thermal expansion of gas above the liquid in the thermometer |
| (3) Capillary action                                             |
| (4) None of the above                                            |

- 07.** The compound which serves as antioxidant in living systems and plays a key role in detoxification is :
- (1) glutathione (2) glutamate  
(3) proline (4) tetrahydrofolate
- 08.** Which of the following vitamins regulates  $\text{Ca}^{2+}$  metabolism ?
- (1) Vitamin A (2) Thiamine  
(3) Ascorbic acid (4) Vitamin D
- 09.** An example of antioxidant enzyme is :
- (1) Superoxide dismutase  
(2) Choline oxidase  
(3) Phenylalanine ammonia lyase  
(4) Alcohol dehydrogenase
- 10.** The organ of the body mainly damaged in hepatitis is :
- (1) Heart (2) Liver  
(3) Kidney (4) Eye
- 11.** Kala-azar is transmitted by :
- (1) Redurid bug (2) Sand fly  
(3) Tsetse fly (4) Mosquito
- 12.** The largest incubation period is seen in which type of malaria :
- (1) *P. vivax* (2) *P. ovale*  
(3) *P. falciparum* (4) *P. malariae*

**13.** Which of the following does **not** play a role in wound healing ?

- |               |              |
|---------------|--------------|
| (1) Vitamin-C | (2) Zinc     |
| (3) Oxygen    | (4) Cortisol |

**14.** Among cereals and millets, richest source of calcium in :

- |            |           |
|------------|-----------|
| (1) Bajara | (2) Maize |
| (3) Ragi   | (4) Wheat |

**15.** Dengue virus appears to have a direct man mosquito to man cycle in India. The mechanism of dengue virus survival in the interepidemic period is :

- (1) Non-human reservoir
- (2) Dormant or latest phase in man
- (3) Transovarian transmission of the virus.
- (4) Poor housekeeping by the public

**16.** Microfilaria Endemicity Index is :

- (1) Number of microfilaria in the blood
- (2) Percentage of persons showing microfilaria in their blood
- (3) Average number of persons with positive slide
- (4) Percentage of persons showing microfilaria in blood and diseased individuals

17. Which of the following is **not** transmitted by Arthropod :
- (1) Relapsing fever
  - (2) Rickettsial pox
  - (3) Rocky mountain spotted fever
  - (4) Q fever
18. Which of the following vegetable is from non vegetables sources :
- (1) Vitamin- A
  - (2) Vitamin- B<sub>1</sub>
  - (3) Vitamin- B<sub>12</sub>
  - (4) Vitamin- C
19. After giving Japanese encephalitis vaccine, immunity develops :
- (1) 5 days
  - (2) 15 days
  - (3) 30 days
  - (4) 90 days
20. The fortificant used in iodized salt is :
- (1) Sodium iodide
  - (2) Potassium iodide
  - (3) Sodium iodate
  - (4) Potassium iodate
21. In statistical literature data are broadly classified as interval scale data, ordinal scale data, & categorical data. Blood groups will be an example for :
- (1) Interval scale data
  - (2) Ordinal scale data
  - (3) Nominal scale data
  - (4) None of the above

22. What method of sampling is recommended to estimate the immunization coverage :
- (1) Simple random sampling
  - (2) Stratified random sampling
  - (3) 30 Cluster random sampling
  - (4) Multi-stage random sampling
23. In a normal (Gaussian) curve, the area between 2 SD from mean on either side is :
- (1) 68%
  - (2) 95%
  - (3) 99%
  - (4) None of the above
24. Calculation of relative risk requires a :
- (1) Prospective study
  - (2) Retrospective study
  - (3) Cross sectional study
  - (4) Exploratory study
25. A sample of 50 men who has myocardial infarction, the mean CPK level is 280 u/l and the SD is 18 u/l. The standard error of mean would be :
- (1)  $280/18$
  - (2)  $18/\sqrt{50}$
  - (3)  $18/50$
  - (4)  $280/\sqrt{18}$
26. Type I error is :
- (1) Accepting a null hypothesis
  - (2) Accepting a null hypothesis when it is false
  - (3) Rejecting a null hypothesis when it is true
  - (4) Rejecting a null hypothesis



27. The odds ratio in a case control study was found to be 5.2. The statistical significance will be assessed by :
- (1) Paired t test
  - (2) Unpaired t test
  - (3) Wilcoxon sign rank test
  - (4) Chi square test
28. In a study of 30 patients of liver cirrhosis, enzyme level was evaluated before and after the treatment. The test of significance would be calculated by:
- (1) Paired t test
  - (2) Unpaired t test
  - (3) Chi square test
  - (4) McNemar test
29. If two samples are drawn from two non Gaussian populations, 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) Chi square
  - (4) None of the above
30. In hypothesis testing, the hypothesis tentatively assumed to be true is :
- (1) The alternative hypothesis
  - (2) The null hypothesis
  - (3) Either the null or the alternative
  - (4) None of these alternatives is correct
31. If a hypothesis is rejected at 5% level of significance, it :
- (1) Will always be rejected at 1% level
  - (2) Will always be accepted at 1% level
  - (3) Will never be tested at 1% level
  - (4) May be rejected or not rejected at 1% level

32. Which experiment design is more efficient?
- (1) Completely randomized design
  - (2) Randomized block design
  - (3) Latin square design
  - (4) All are equally efficient
33. In a clinical trial risk difference of developing infection between vaccinated and unvaccinated group is 0.2%, how many cases should be vaccinated to prevent one case of infection?
- (1) 50                      (2) 20                      (3) 500                      (4) 200
34. Components of Pregnancy and child birth under RMNCH+A Programme in India are following EXCEPT
- (1) Preventive use of folic acid in peri-conception period & Antenatal care package and tracking of high risk pregnancies
  - (2) Skilled obstetric and essential newborn care and resuscitation & Emergency obstetric and new born care
  - (3) Postpartum care for mother and baby & Postpartum IUCD insertion and sterilization
  - (4) Adolescent friendly health services
35. In a population of 5000, birth rate is 25/1000 and considering a correction factor (pregnancy wastage) of 10%. What will be the total number of expected births in a year :
- (1) 138                      (2) 125                      (3) 60                      (4) 140
36. According to international standards, STILL BIRTH is defined if the weight is ABOVE :
- (1) 500 gm                      (2) 800 gm
- (3) 1000 gm                      (4) 2000 gm

37. Child Survival Index is calculated by?
- |                    |                    |
|--------------------|--------------------|
| (1) $1000-IMR/10$  | (2) $IMR-1000/10$  |
| (3) $1000-U5MR/10$ | (4) $U5MR-1000/10$ |
38. The following statements about breast milk are true except :
- (1) The maximum milk output is seen at 12 months
  - (2) The coefficient of uptake of iron in breast milk is 70%
  - (3) Calcium absorption of human milk is better than that of cow's milk
  - (4) It provides about 70 kcals per 100 ml of breast milk
39. Which of the following advice should be given for an infant suffering from mild diarrhoea?
- (1) Continue breastfeeding
  - (2) Antibiotics
  - (3) Stop all breast feed and start ORS
  - (4) Intravenous fluid administration
40. Maternal Mortality Rate is calculated by :
- (1) Number of maternal deaths during a given time period per 100,000 live births during the same time period
  - (2) Number of maternal deaths in a given period per 100,000 women of reproductive age during same time period
  - (3) Number of maternal deaths during a given time period per 100,000 population during the same time period
  - (4) Number of maternal deaths in a given time period per 1000 population during the same time period

**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.** Ecological Studies
- 02.** Physical Quality of Life Index (PQLI)
- 03.** Measuring indicators of strength of association
- 04.** Graphical presentation of data
- 05.** Measures of dispersion
- 06.** Menstrual Hygiene scheme
- 07.** Maternal death review
- 08.** Treatment as prevention in HIV/AIDS
- 09.** Brief account of strategies for elimination of Lymphatic filariasis
- 10.** Role of targeted Public distribution system in combating FOOD INSECURITY in India

Question No.

Page for Short Answer

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Question No.

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**ROUGH WORK**

रफ़ कार्य

**ROUGH WORK**

रफ़ कार्य

## अभ्यर्थियों के लिए निर्देश

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

1. प्रश्न पुस्तिका मिलने के 30 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोपथुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक 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 वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
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. ध्यान दें कि एक बार स्याही द्वारा 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 छोड़ दें। ऐसे प्रश्नों पर शून्य 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 उपरान्त केवल ओ एम आर उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भागी होगा/होगी।